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BALTIMORE, OCTOBER 24, 1912.

## SOUTHERN RESOURCES AS RE- VEALED TO FOREIGN CHEM- ICAL TECHNOLOGISTS.

"Would that I had come here when I was young!" exclaimed a German professor last week when he viewed for the first time the Caddo natural-gas fields in Louisiana, typifying the vast natural resources of the South. He was one of a party of 60 German, Austrian and Belgium representatives of chemical technology, who, after the adjournment of the International Congress of Applied Chemistry, were rounding up an interesting tour of the country by a stay of a week at strategic points in the South. The visit of these scientists to the South will undoubtedly have effect advantageous to that section, and the MANUFACTURERS RECORD has a feeling of great satisfaction for the part it had in making the visit a fact. As soon as plans for the congress began to be formulated, Dr. David T. Day of the United States Geological Survey, one of the wheel-horses for the eminent success of the congress, got in touch with the MANUFACTURERS RECORD with the idea of having the visitors from abroad make an excursion to the South. The suggestion was promptly made to leaders in the industries contributing to the application of chemistry to the arts or dependent upon such application, to railroad executives and to business organizations in the South, out of which developed a definite outline for the excursion which terminated at Washington a few days ago.

The enthusiasm of the German professor, with its tinge of regret that he had not come to the South when he was young, is characteristic of the attitude of the foreign visitors toward the

South, which, as far as the utilization of its national resources is concerned, is still in the heyday of youth. The chemists from abroad really were shown only samples. They had opportunity merely to observe the beginnings of development. For, in spite of the tremendous strides which the South has made in the past twenty-five or thirty years; in spite of the achievements of today, surpassing in several leading lines those of the whole country of thirty years ago, many of its resources, especially those available in the application of chemistry to industry, have hardly been touched by man. The visitors could not fail to be impressed with the chance, not only for an alliance between the stores of mineral wealth in the South and the older chemical manufacturing centers, but also for the building up in the South of great chemical industries. Such is the conviction based upon the review of the trip through the South which is published on another page of this issue.

## DISPOSAL OF SEWAGE BY CITIES.

F. H. LaBaume of Roanoke, Va., agricultural and industrial agent of the Norfolk & Western Railway, writes to the MANUFACTURERS RECORD:

You are doing a great work, not only for the South, but for the country at large, and it is appreciated by all those who are interested in the real progress of the commonwealth.

Mr. LaBaume's statement was made in connection with his commendation of an article published in our issue of October 17 in which William B. Ruggles of the Ruggles-Coles Engineering Co. of New York dealt with the economic disposition of sewage sludge. He not only has found in the article an important contribution to the discussion of the conservation of natural resources and the utilization of wastes, but has also written to the business organizations in the cities served by the Norfolk & Western system, directing their attention to the article, and saying:

For years the British and Continental cities have been saving this most valuable fertilizing product from the sewage of towns and cities and thereby not only vastly enriching their agricultural communities, but at the same time commanding an excellent profit for the municipalities themselves. Mr. Ruggles cites numerous instances where this product is recovered, dried, ground and bagged at a cost of less than \$1 per ton, and states, furthermore, that a considerable portion of it is now being shipped to the United States at a price of \$3.40 per ton in England, or between \$5 and \$6 per ton to the American purchaser. Our American cities have been criminally negligent in the waste of a product that is netting millions of dollars to European municipalities, and American agriculture is going to continue to suffer, and the prices of food products will continue to rise until our citizens realize the necessity of conserving the fertility in the city as well as on the farm.

This question of increased fertility, however, is not the only benefit derived from the installation of these sewage sludge plants. One of the greatest benefits results from the non-pollution of streams, which, under the present system, carry infection, disease and death throughout the country.

In other words, with the universal establishment of these plants millions of tons of the highest-grade fertilizer, now going to waste, would be recovered every year, sold to the farmer at a cost of less than one-half what he is compelled to pay for other fertilizer, enrich our farms, develop the agricultural industry, improve sanitary conditions generally, and result in profit to the cities themselves.

Mr. LaBaume urges the representatives of business bodies to see that Mr. Ruggles' article is reproduced in the local newspapers as a means of encouraging municipal officials to pay attention to this very important practical question. Hundreds of millions of dollars are being spent annually by cities, great and small, in this country for the betterment of their water supplies and for the disposition of their sewage. Not infrequently extraordinary expenses have been incurred in providing water supplies free from the pollutions of city life, and, at the same time, the efforts to dispose of sewage economically by some cities have resulted in the tainting of the water supplies of cities a hundred miles distant. Again, the municipalities have paid for the disposal of sewage when, as a matter of fact, they should have received an income. No matter how small a city may be, it cannot afford not to look to the future in the matter of obtaining a good supply of drinking water and of providing for the disposition of sewage. If, in connection with the latter, improvement of agriculture may be advanced, so much the better. In urging the suggestion upon business men and municipal officials Mr. LaBaume has shown himself alert to the interests of the territory in which his railroad company operates.

## NEW ORE DISCOVERIES AT BIRMINGHAM.

The MANUFACTURERS RECORD has repeatedly in the last few years stated that diamond-drill borings in the Birmingham district would demonstrate a very large increase in the proven supply of iron ore. Recent tests have proven the correctness of this position. Birmingham papers report a recent diamond-drill investigation of a large tract of land in Shades Valley, and state that the core showed a vein of nine feet six inches of ore, and six inches below that another vein of nine feet eight inches, with an average analysis of 36 per cent. to 37 per cent., low in silica and self-fluxing.

T. H. Aldrich, Jr., long identified with the mineral interests of Birmingham, and other experts who have investigated these properties are reported as very enthusiastic about these tests. The *Age-Herald* quotes a Birmingham geologist, and without giving his name vouches for his standing as an expert geologist, as follows:

There has been proven to exist, of good quality and at the present day workable, at least 1,300,000,000 tons of red ore, which gives this district easily one-fourth of the total iron ore of the United States. As there is enough coal to smelt the whole of this ore, there should ultimately exist in this district

furnaces smelting one-fourth of the iron ore of the country.

The market for iron has been the one factor curtailing development up to the present, but with the rapid increase of the population of the South and the development of the processes of making steel we will have an outlet for finished products which now come from the North. Birmingham now makes 7 per cent. of the iron of the country, and when it has the market it will make 25 per cent. We should ultimately have in this district industries consuming one-fourth of the total iron manufactured in the United States. When this comes to pass, few can guess how large Birmingham will be. Great has been our progress in the past, and the future holds even brighter prospects.

## THE SOUTH'S RESOURCES JUSTIFY BROAD DEVELOPMENT WORK.

The *Tribune* of Tampa, Fla., publishes an interesting interview with Mr. Peter C. Knight, a leading business man of that city, who has recently returned from a trip of investigation through the West and along the Pacific Coast made for the purpose of studying the relative advantages of California and other Western places and Florida. Mr. Knight expresses his great surprise at finding that citrus-fruit lands in California, even wild land, is held at from \$800 to \$1000 an acre, while in Florida, as he says, "we have land equally as good, as well located and with the advantage of a greater annual rainfall, selling for \$50 or so an acre. And California is six days from the market, while Florida is only 36 hours." And to this he adds:

I am more than ever convinced that here in Florida we will only have to sit tight and in a few years our land will be in demand exactly like California land is now. We cannot have all these things in such generous quantities and the whole world not find it out sooner or later.

Mr. Knight is doubtless correct in saying that the world will find it out sooner or later, but California did not wait for the world to find it out; it made the world know about its advantages, and it pressed these advantages so strongly upon the world's attention that it did not have to wait. It has been said that "all things come to him who waits," but that is a false doctrine. The man who wants things must go after them and get them, and not wait, McCawber-like, "for something to turn up." The growth of Florida's population during the last 10 years, in which there was an increase of 42 per cent., or more than twice the rate of increase for the whole country, was brought about to a very large extent by the work which has been done by Florida people in following the example of California and going out after the world in order to make the world know its resources. And yet Florida and the railroads of Florida have done very little as compared with what California roads have done. The East Coast Railroad and the Seaboard Air Line have been very active factors in making Florida known. They have been pushing upon the world's attention the resources of

the State and, with very great success, and yet even these roads have not yet done for Florida anything like the work that has been done by California railroads for that State, though they are now doing splendid work which is having a telling effect. The owners of California railroads have put money out with a lavish hand in order to broadly make California known in every section of this and other lands. Year after year they have spent hundreds of thousands of dollars telling about California, and the result is seen in the statements made by Mr. Knight. The two Florida railroads, which have been most conspicuous in similar work, have already accomplished great things, but the field is so limitless, the possibilities of Florida are so great, that every interest in that State could well afford to imitate the broadness of the California campaign of publicity.

And what is true of Florida is true of the whole South. There is no other equal area in the world so marvelously endowed by nature with wealth of resources. There is no other country having such a range of climate, such wide variety of agricultural possibilities, so vast and varied resources for manufacturing; no other country with such a combination for the creation of wealth, for the making of homes, for the betterment of health. Surely here is a region that should call into play the broadest activity, the most far-reaching display of energy ever put forth in the development of any country. No other country has so much on which to base such a campaign. No other country has such limitless opportunities. No other country is in a position to make good to such an extent as the South. The amazing increase in population and wealth seen on the Pacific Coast can be more than duplicated in the South whenever the people of this section and the great business organizations interested in its development awake to the opportunity and follow the example of the Pacific Coast in going out after the world and literally bringing it to a knowledge of its resources and advantages. Every man in the South, regardless of his business or his profession, and every enterprise interested in Southern development should catch a new vision of what can be achieved.

#### HOW TO GET CONTRACTS.

Even a sample copy of the MANUFACTURERS RECORD often proves exceedingly profitable to those who are fortunate enough to receive it and wise enough to read it. The Wytheville Iron Works, Inc., of Wytheville, Va., manufacturers of gray-iron castings and other machine work, writing under date of October 8, say:

As we received the contract on Class 2 Isthmian Canal Commission Circular No. 731, we feel that you are entitled to the enclosed check for \$4 for a year's subscription to the MANUFACTURERS RECORD, as we obtained our first information concerning the letting of this work from the sample copy of the magazine that you forwarded us.

This is only one of hundreds of illustrations that are constantly seen as to the benefit to those who read the MANUFACTURERS RECORD carefully.

#### PAPER FROM YELLOW PINE.

A practical advertisement of one of the expanding industries of Orange, Tex., is the use by the *Daily Leader* of that city of paper manufactured by the Yellow Pine Paper Mill Co. At Orange was first worked out successfully the problem of the utilization of the refuse

of yellow-pine sawmills in the manufacture of pulp for paper, and the plant established for that purpose a few years ago has now a daily capacity of 100,000 pounds of pulp and 70,000 pounds of wrapping paper. The success of the undertaking has brought about the establishment at Orange of another industry—the manufacture of paper bags from this yellow-pine pulp—the capacity of the plant being 500,000 bags a day. The paper upon which the *Daily Leader* has been printed is but one of the many varieties manufactured by the paper-mill company.

#### CONGRESS SHOULD BE INVESTIGATED.

The deeper the probe goes into the official record of the facts connected with the action of the Congress of the United States on the postoffice appropriation bill, with its "rider" directed especially against the daily newspapers of the country, the more pronounced becomes the conviction that the constitutional safeguards were not observed in the action, and that, therefore, the whole measure has no legal status. Late at night on August 23, when the House of Representatives, or at least a minority of its members, the only ones present, had before them the question of adopting the conference report on the postoffice appropriation bill, the Speaker announced that the ayes seemed to have it. Representative Murdock of Kansas raised the point of no quorum. Whereupon the following occurred:

The SPEAKER. The Chair will count. (After counting.) One hundred and fifty-nine gentlemen are present, not a quorum.

Mr. UNDERWOOD. Mr. Speaker, it is evident we cannot get a quorum here tonight—(Cries of "Call the roll!")

Mr. CLAYTON. Mr. Speaker, let us call the attention of the country to this evil of absenteeism and point out the men who do not stay here.

Several members. Let us try to get a quorum.

Mr. ALLEN. Mr. Speaker, from the statement it is not a question of members here now, but there has been absenteeism practically of members who have gotten here in the last 24 hours, and why should they raise the point of order upon the rest of us; why should they come in and raise this question—

The SPEAKER. There is nothing before the House for debate. Does the gentleman from Alabama make his motion to adjourn?

Mr. UNDERWOOD. Mr. Speaker, I desire to inquire whether or not the Speaker has put the motion and if the automatic rule does not apply?

The SPEAKER. Yes, the automatic rule applies. The House is dividing, the Doorkeeper will close the doors, the Sergeant-at-Arms will notify absentees, and the Clerk will call the roll.

The question was taken, and there were—Yea 130, nays 24, answered "present" 10, not voting 227.

Speaker Clark announced that only 164 members were present; not a quorum.

That was the last aye and nay vote in the House at the session which adjourned on the afternoon of Monday, August 26. In the meantime on August 24 the House agreed on the postoffice appropriation bill, which, forthwith went to the President for approval. But between August 23 and August 26 were two or three notable indications that the quorum, a majority of the members of the House, which was not present on the earlier date, failed to materialize. For instance, on Monday morning, August 26, Representative Samuel W. Smith of Michigan, rising for a parliamentary inquiry, said:

If a motion should be made to adjourn *sine die* and it developed there was no quorum, could the House adjourn?

To this Speaker Clark replied:

Well, the emergency has not arisen. We will cross that bridge when we reach it.

Again, later in the day, when Representative Underwood of Alabama moved that the House take a recess for an hour, the following occurred:

Mr. LAFFERTY. Mr. Speaker, I make the point of order there is no quorum present.

The SPEAKER. The gentleman, if he desires to do so, can make the point.

Mr. LAFFERTY. I desire merely to speak for five minutes on the subject which has been discussed here.

Mr. UNDERWOOD. Mr. Speaker, I move that at the end of five minutes the House take a recess for one hour.

The SPEAKER. The gentleman from Alabama moves that at the end of five minutes the House take a recess for one hour.

Mr. LAFFERTY. I withdraw my point.

Finally, when a member proposed a suspension of the rules, the following occurred:

The SPEAKER. It would not do a particle of good to ask to suspend the rules, and it would not do any good for the Chair to recognize the gentleman, because here is the rule about suspensions:

"No rule shall be suspended except by a vote of two-thirds of the members voting, a quorum being present."

Of course the Chair will take official notice of the fact—

Mr. MANN. I hope the Chair will not make the announcement that there is no quorum present.

The emergency was about to rise—and there was no bridge.

Earlier in the day the House had voted on a joint resolution fixing the hour of adjournment, and under that resolution adjournment was had. Has the second session of the Sixty-second Congress ever legally adjourned?

The Constitution of the United States provides that a majority of the House of Representatives shall constitute a quorum to do business. If a quorum is not present, the House cannot adjourn *sine die*, nor can it do business legally.

If the postoffice appropriation bill was not passed in accordance with law, the country should be acquainted with the names of the Congressmen responsible for the embarrassments that are bound to ensue. A beginning of the investigation may be made by consulting page 12,820 of the *Congressional Record* of the second session of the Sixty-second Congress, when, with the postoffice appropriation bill before the House of Representatives, it developed that only 164 members were present. On that page are published the names of those members who were present and of those who were not present. It would do a good turn for the country for the Congress, notorious for its "investigating" committees, to be investigated itself.

#### HEAVY STEEL RAIL ORDERS FROM SOUTHERN ROADS.

The order given by the Louisville & Nashville Railroad to the Tennessee Coal, Iron & Railroad Co. for 90,000 tons of steel rails, following orders in October from the Harriman Lines for 31,000 tons and in September from the Atlantic Coast Line for 20,000 tons, are indicative of the efforts of the railroads to improve their transportation facilities to meet increasing business. The Ensley plant of the Tennessee Coal, Iron & Railroad Co. is running at full capacity, and the orders now on hand are sufficient to keep it fully employed for several months to come. In view of the disposition of the railroads to place large orders for rails and rolling stock, it is probable that this plant will be crowded to its capacity not only in filling present orders, but many others that will follow. The big operations of

this plant are more and more commanding the attention of the country on account of the superior quality of Birmingham steel and the magnitude of the development of the steel industry already achieved in that district. But Alabama has seen only the infancy of its iron and steel growth.

#### A FALSE STANDARD OF SUCCESS.

A Southern savings bank in an advertisement explaining why people should deposit in that bank quotes James J. Hill as follows:

If you want to know whether you are destined to be a success or a failure in life you can easily find out. A test is simple and it is infallible. Are you able to save money? If not, drop out. You will lose. You may think not, but you will lose as sure as you live. The seed of success is not in you.

We hope that Mr. Hill never made the statement, but whether or not he did we regret that any bank should use it as a part of an advertising campaign. According to this statement credited to Mr. Hill, a man is a success or a failure in life according to whether he is able to save money or not. It is difficult to formulate a lower test of success than this. The ability to save money may have very strong features in its favor; waste of money may be a sin, but there are millions of men whose lives have been pre-eminent successes who have not been able to save money. Some of them have found a higher side of life than the mere saving of money. Some of them have found that while suffering and sickness and sorrow were all around them money could be used to better advantage to help others than the saving of it for their own financial betterment. Many a man has gone through life without ever having acquired the ability to save money, but whose success is writ large in human affairs as well as on heaven's books.

What a sordid view of life is here expressed: "Are you able to save money? If not, drop out. You are a failure." Is it possible that a man who has posed before the public as a leader like Mr. Hill could ever have uttered such a false standard by which to judge the success or the failure of a life? It may be true that if a man cannot learn to save money he may not acquire wealth, but that does not mean a failure in life. It may be that many a spendthrift wickedly wastes money that ought to be saved, but there is many a miser who is a pre-eminent success in saving money, who can hoard his pennies and his dollars and gloat over his increasing wealth, but whose life is a dismal failure for this world, and, so far as we can see, for the next. It is well to cultivate among all classes—and this is especially needed today in the South—the habit of thrift and economy and the saving of money, but it is still wiser to encourage the development of character which makes for true manhood, and this measures whether a man is a success or not, rather than to base the estimate of life on ability to save money.

#### TO GAIN INFORMATION.

T. W. Kirkbride of Whitesburg, Ky., writes to the MANUFACTURERS RECORD:

I have been for several years a subscriber for your most valuable paper. It has been necessary for me in several instances to seek needed information either through your office or the columns of the MANUFACTURERS RECORD, and in every instance the results have been accurate and in excess of expectations, for which I am indebted to you and thankful for, and wish you all the success and prosperity that is deserved for such great work so generous and liberally given.



# The Chemical Congress and Its Effects Upon the South.

The Eighth International Congress of Applied Chemistry has been held and the members have returned to their homes, except, perhaps, a hundred who are still pursuing investigations special to the industries with which they are associated abroad.

This is perhaps an opportune time to summarize the work of the congress and forecast its influence upon domestic chemical development, especially in the field in which the MANUFACTURERS RECORD is particularly interested; that is, the Southern States. Much has been printed in this journal endorsing the holding of this congress in the United States and especially commending the members of the congress to the hospitality of those who wish to promote chemical manufacture based upon the South's rich stores of chemical material.

The localities where these chemicals exist have been pointed out in detail by various writers for the MANUFACTURERS RECORD, and the possibilities of using the fuels and the water-power of the South for their development have been emphasized repeatedly, and it may be of interest to its readers to know something of the expert opinions which have been passed upon these resources as the result of the visit of the foreign manufacturing chemists and chemical professors in attending this international congress.

The congress was probably the largest scientific organization which has ever met as an international congress. Over 4000 persons joined the congress, many of them without attending merely for the purpose of securing copies of the proceedings. The eagerness of the chemists of the world to secure these proceedings is largely due to the fact that all the papers presented before a certain date were printed in advance and the entire series printed in some twenty-odd volumes and delivered to the members when they registered to attend the congress. In fact, a complete set of the proceedings was delivered in Germany and another in London before the hour at which President Taft covered the congress in Washington. This plan was entirely novel, and well served the purpose of allowing the members to read the papers in which they were interested and prepare for careful discussion of them. This discussion comprised the chief work in the sessions which were held for eight days in New York after the formal opening session in Washington.

Although, as stated, many of the members joined the congress merely to obtain copies of the transactions, well over 2000 members were actually present at the various sessions. This proved a surprise to the committees in charge of the work, so that not all members could receive copies of the proceedings, nor did even the supply of badges and temporary literature, programs, etc., suffice for the large number actually in attendance in New York.

The proceedings and discussions well justified the holding of the congress, and much time will be required before the full benefit of this printed literature is felt in the improvement of chemical industries in the United States and elsewhere.

Meantime, another essential function of the congress which has been in the course of preparation for three years consisted in effort to exhibit to the chemists the natural resources of the United States

in materials for chemical manufacture. For this purpose a committee of three on excursions was appointed early in the preparatory work, and Dr. George E. Rosengarten of Philadelphia was selected as chairman. With great industry and with an enormous amount of correspondence he organized two excursions, known, respectively, as the "short" and "long" excursions. The routes were selected by the aid of the committee on factory inspection, to whom invitations from various factories were sent to have the chemists visit their establishments. The chairman of this committee was Dr. M. C. Whittaker of Columbia University, New York.

The "short" and "long" excursions journeyed together from New York to Philadelphia, Pittsburgh, Niagara Falls, Detroit and Chicago, where they branched, the "short" excursion returning by way of Cleveland to Boston, while the "long" excursion extended to the Pacific coast by way of Denver, Salt Lake, Bakersfield, Cal., San Francisco and Los Angeles, and returned through the South to New York.

It is to the "long" excursion that this article will be limited.

The number of members participating in the "long" and "short" excursions was disappointingly small. This was no doubt due to the considerable length of time which the foreign members were obliged to spend in reaching the United States, attending the congress and returning, which occupied in general the limit of leave of absence which most scientific men were able to obtain. Further, the weather at the end of the congress proved unusually trying for the foreign members, and a number who would otherwise have gone were not in physical condition to take part in so long a trip. But the interest in the "long" excursion was well shown by the fact that many who were obliged to sail from the United States on steamers leaving before the end of the "long trip," went on the excursion and remained with it until the last day possible before being obliged to return by the most direct route in order to sail at the appointed time.

The following is a list of the participants when the train left Chicago, with the addition of several ladies who took part in the excursion:

J. A. Adan, 25 Bd. de Waterloo, Bruxelles, Belgium.

Dr. Robert Adan, 31 rue de Flandre, Ghent, Belgium.

Direktor Richard Brandels, Aussig, Austria.

Prof. Dr. E. Bronnert, Dornath, Germany.

Prof. Dr. Hans Bucherer, Dresden, Nürnbergerstr. 49, Germany.

Dr. Wilhelm A. Clemm, Mannheim, Germany.

Dr. W. Cramer, Dessau, Germany.

Mr. Winthrop C. Durfee, Boston, Mass.

Mr. Philip S. Durfee, Boston, Mass.

Prof. W. Hodgson Ellis, University of Toronto, Toronto, Canada.

Siegfried Erbslöh, Düsseldorf, Germany.

Dr. Edw. Erlenbach, Charlottenburg, Pestalozziestr. 58, Germany.

Dr. Paul Eschert, Danzig, Germany.

Dr. Walter Gerhardt, Bonn a Rhein, Bornheimerstr. 90, Germany.

B. Goldschmidt, Essen, Germany.

Dr. G. Grube, Dresden, Tischstr. 8, Germany.

Dr. R. Giuliani, Heidelberg, Gaisbergstr. 7, Germany.

Dr. H. Hähle, Blasewitz-Dresden, Germany.

Dr. Victor Hänisch, Duisburg a Rhein, Germany.

Dr. Hugo Henkel, Düsseldorf, Germany.

Arthur Heydenreich, Leipzig, Germany.

Karl Hintz, Wiesbaden, Germany.

Dr. R. Hoffmann, Clausthal, Germany.

Dr. Fritz Honigsberger, Schöneberg, Berlin, Germany.

Josef Hubert, Aussig, Austria.

Dr. Ing. Kayser, Neumarkt, bei Nürnberg, Germany.

O. F. Kaselitz, Berneterode, Germany.

Dr. Gustave Keppeler, Hannover, Germany.

Prof. Dr. Ludwig Knorr, Jena, Germany.

Ing. Bernhard Koehler, Jr., Berlin, S. 42, Brandenburgerstr. 34, Germany.

Mr. A. S. Krebs, Denver, Colo.

Mr. Henry J. Krebs, Wilmington, Del.

Dr. Paul Kurtz, Tübingen, Nanolerstr. 18, Germany.

Dr. A. Lange, Berlin-Niederschönweide, Germany.

Dr. Edw. Marckwald, Berlin, S. W. 68, Markgrafenstr. 88, Germany.

A. Mausier, Köln, Germany.

Prof. Dr. Julius Mauthner, Wien, Mariannengasse 10, Germany.

Dr. B. Mulert, Berlin-Wilmersdorf, Hohenzollerndamm 15, Germany.

Dr. Hans E. Müller, Darmstadt, Germany.

Direktor Dr. William Müller, Flix, Spain.

Dr. O. Pankroth, Frankfurt-a-Main, Mendelssohnstr. 8, Germany.

Prof. Dr. Edmund Parow, Gröndewald-Berlin, Germany.

Dr. Ing. K. Quasebach, Aachen, Seilsgraben 26, Germany.

Dr. Paul Riedel, Pirna a Elbe, Saxony.

Dr. Geo. D. Rosengarten, Philadelphia, Pa.

Rudolph Sack, Düsseldorf-Gräfenberg, Germany.

Werner Sack, Düsseldorf-Gräfenberg, Germany.

Dr. Karl Schall, Leipzig, Germany.

Johannes Schmidt, Leipzig, Germany.

Adolph Schrey, Dresden, Sidonienstr. 28, Germany.

J. Schultze, Halle, Germany.

Dr. Leopold Singer, Pardubitz, Austria.

Leo Steinschneider, Brünn, Austria.

Edwin Storek, Brünn, Warneckstr. 7, Austria.

Ing. Gerhardt Storek, Warneckstr. 7, Austria.

Prof. Dr. J. Thiele, Strassburg, Germany.

Prof. Dr. D. Vorländer, Halle, Robert Franzstr. 10a, Germany.

Dr. A. Wacker, Wien, Germany.

Dr. Ing. F. A. Weber, Duisburg, Germany.

Dr. W. Wense, Griesheim a Main, Germany.

Dr. J. J. A. Wijs, Beeklaan 387, The Hague, Holland.

This list, though not long, represents, of course, those who proved to be especially interested in the objects of the excursion—the investigation of our chemical minerals, plants, water-powers and fuel supply, with a view to their better development, and with a view also to the adoption of such new methods and processes as they might find for the betterment of European practice. They may be divided into two classes—professors and technologists, or manufacturers. As a rule, the former were men of mature years and of very unusual attainments in the broad field of applied chemistry. The other class embraced much younger men, usually specialists in the manufacture of some particular line of chemical products. Some appeared extremely youthful, as if mere college graduates, but this first impression proved deceptive, as these very men proved most keenly critical and appreciative of American resources and developments.

Among the professors stood out Prof. D. J. Thiele, who made his reputation at the head of the chemical department of the University of Munich, and has since gone to the corresponding position in the University of Strasburg. Professor Thiele is especially prominent in such processes as the extraction of nitrogen from the air in the form of nitric acid and in other lines of electro-chemistry, but there was no kind of applied chemistry on the tour through the United States on which he is not an acknowledged authority, and he studied every factory, from cotton oil to a gingham mill, in search of additional information. His quick observation was evinced in a Charlotte, N. C., cotton mill, where, in going through the dyeing-room, without stopping he noted by a peculiar luster on the dye vat that they were using up-to-date methods of manufacturing artificial indigo in the fiber of the cloth itself. And the plant has his stamp of approval.

Another not less renowned chemical professor in the party was Professor Dr. Ludwig Knorr, at the head of the chemical department of the University of Jena. He is a somewhat younger man, and, while his range of study included everything from the minerals of the Grand Canyon to the compounding of cottonseed oil, he has made a speciality of alkaloids, and is renowned as the discoverer of antipyrine. He was induced to join the excursion by his great regard for his former fellow-student, Dr. Rosengarten, the leader of the party. At the last of the many informal gatherings of the members during the trip for discussion of the events of the tour, Professor Knorr was selected to sum up the principal features observed in the United States, and reference to this will be made further on.

Professor Mauthner of the University of Vienna headed the Austrian delegation. He, like the chemists already referred to, is the acknowledged head of chemical work in his country. He was always the choice of his delegation in expressing the views of the Austrians as to what they had seen and the hospitable welcomes which they received.

Perhaps the most active investigator among the educator group was Professor Dr. Hans Bucherer of the University of Dresden. There was no keener observer among the professors, no one more willing to receive and accept suggestions of new lines of progress. It was by his suggestion that the city of Fort Worth was asked to include in its entertainment a study of the cotton industry from the blossom to the end products.

Prof. R. Hoffmann is at the head of the metallurgical department of the School of Mines in the classic institution at Clausthal. His speciality is metal smelting and electro-metallurgy.

All of these educators considered it a privilege to visit chemical manufacturing of any kind, but enough has been said to show that each had a special line of interest in which he had specialized.

This was much more pronounced among the younger men who were technologists, chemical and mechanical engineers. Among them several stand out as especially prominent in their particular lines. Among them we may note particularly Dr. Leopold Singer, director of the oil refinery in Pardubitz, Austria, and consulting oil chemist in several other re-

fining concerns in Austria and Roumania. Dr. Singer is also the recognized recorder of oil refining progress in his annual reviews of this subject. He was fortunate in being granted admittance to some of the largest refineries in the United States, and thus able to compare American methods with those in Europe. With him came Director Steinschneider, also of Austria, where his engineering concern makes a practice of analyzing specimens of crude petroleum from any part of the world and then planning and constructing such a refinery as will prove most suitable for this particular oil. He accompanied Dr. Singer to all the refineries visited. Prof. Carl Engler, the oil expert of Karlsruhe, Germany, was only able to accompany the party in the excursions in the neighborhood of New York, and Prof. D. Holde and Prof. L. Ubbelohde could only go as far as Chicago before reaching their time limit.

Another coming oil expert who accompanied the party from beginning to end is Dr. Botho Mulert of Berlin, who in keenness of perception is not surpassed by any of his more advanced colleagues. Not hindered by any especial ties to the Old World, he studied every phase of the oil and gas situation, and visited every available oil and gas field and refinery.

Dr. W. A. Clemm of Mannheim, Germany, was the ranking specialist in the manufacture of heavy chemicals especially by the electro-chemical decomposition of salt into caustic soda and bleaching powder. His emphatically expressed approval of the conditions in the South favoring the production of heavy chemicals and his willingness to co-operate in such development is one of the fortunate developments of the tour.

Another specialist in much the same frame of mind as the result of his visit is Dr. H. Hülle of Dresden, a specialist in the manufacture of salicylic acid and its salts.

Dr. Parow, Dr. Pankrath and Dr. Cramer specialize in sugar manufacture, and in the treatment of the waste products.

Dr. Wijs of Holland took the tour in order to study the technology of animal and vegetable oils, and was given especial facilities for studying the preparation of olive and cotton oils and of animal fats in the appropriate cities. He is the acknowledged authority on the iodine test for oils, and has improved this method and contributed much to the theory of the method.

Among the technologists there were none more alert and receptive and with so profound a grasp in his specialty as Dr. Edward Erlenbach, specialist in by-product coke oven processes. After his visit to the by-product plant of the Tennessee Coal & Iron Co.'s plant at Birmingham, his lecture to his fellow-travelers was a tribute at once to the great interest aroused in this modern establishment and to Dr. Erlenbach's ability to take an enormous mass of details in very short time. He must be classed, too, among the future developers of American chemical industries.

At the last symposium on the subject of utilizing waste electric power for the conversion of atmospheric nitrogen and oxygen into nitric acid and fertilizer, it developed that Drs. Wacker, Grube, Brandeis, Hoffmann, Thiele, Knorr, Wijs, Erlenbach and Bucherer had mastered the subject abroad, and Dr. Wacker was able to give, without reference to books, the best percentage yield from each process thus far developed and the amount of acid obtained per unit of electricity and the cost of the current per kilowatt.

Curiously enough, it developed that two young mechanical engineers, brothers, by the name of Sack, of Düsseldorf, Germany, and who were supposed to limit themselves to the perhaps sufficiently serious problem of manufacturing rolls and shears for most of the German steel mills, were also experts in the installation of transformers and other electric apparatus.

Two other quite young brothers named Storek were similarly interested in heavy metal work as engineers in Austria.

Another specialist in metals was Mr. Alphonse Mauser of Cologne, Germany, the son of the inventor of the Mauser rifle. He has already developed industrial connections in this country.

Without completing the list enough has been cited to qualify the excursionists for a critical inspection of the United States. But to emphasize the diversity of their special qualifications an incident may be given which occurred in the visit to the Leland Stanford University at Palo Alto, California. The company was being conducted through the storerooms in the basement in order to show them the unusually large supply of glass apparatus. It was explained that this large stock was necessitated by a fact that it was all brought around the Horn and a year must elapse between the giving of an order and receipt of the glassware. It was stated the glassware came from the celebrated glass factory of Gerhardt & Son in Bonn, Germany, and a slight smile on the youngest face in the company led to the explanation that he was looking at his own glassware. He was Walter Gerhardt himself, the active member of the firm. His cousin, Bernhard Koehler, Jr., also quite a young man among the excursionists, holds a similar position in the manufacture of mechanical apparatus in Berlin. Factory inspection began in Philadelphia, with visits to Campbell's Soup Works, chemical factories, the Atlantic Refining Co. (petroleum). In Pittsburgh the visitors were surprised by the hospitable way they were admitted to steel works and many kinds of industrial establishments, in marked distinction to the visit to Niagara Falls, where the prevalence of secret methods made visits impracticable except at the Acheson graphite works, where the inventor showed everything. They visited the great electric power plant, and formed an idea of a statistical basis for increasing the use of electrical power in the South.

Detroit, with the great chemical and drug plant of Parke, Davis & Co., and many other industries, was again a gratifying surprise in the hospitality shown. Then the party began the inspection of great things in Chicago, including the mammoth steel works at Gary, Ind., and the packing-houses. The members of the "long trip" here separated and made their first stop in Denver to inspect smelting works, the small but enterprising plant of the Western Chemical Co. and the Denver Fire-Clay Co. At Cripple Creek they were shown modern methods of extracting values from waste dumps by the cyanide process where the values are as low as \$2.50 per ton. Salt Lake proved most interesting as to the lake itself and the manufacture of salt from it. The picturesque features of the mountains and even of the Mojave desert proved so fascinating that it required an effort to get back to chemical materials in visiting California's vast oil-fuel supplies in Bakersfield and in the McKittrick and Midway fields. Four days were too little for the industries of San Francisco, including salt production, the California Wine Association, the Selby smelter and the facilities for chemical factories at deep-water fronts in Oakland.

Los Angeles offered a study in beet-sugar culture, olive-oil process and the manufacture of Portland cement at the modern plant at Riverside, where dust is saved by the new Cottrell electric process.

In Arizona the metalographers took advantage of the partial wrecking of the train (nobody injured) to secure sample bits of American steel rails for future study and analysis at home.

The Grand Canyon and the Petrified Forest at Adamana, Arizona, proved a welcome relief from industrial study, and fully impressed the foreign visitors with the magnitude of things scenic as well as industrial. El Paso, with its thrift on one side of the river, was contrasted by them with Juarez, Mexico, which they visited by trolley, and gave evidence to the advantage of stable government in industrial development.

Stop was had at Toyah, Tex., long enough to allow those interested to bring to the train specimens of sulphur found some twenty-odd miles to the north and in quantity sufficient to suggest that there is no monopoly in Louisiana. While there the company was asked to stop for 30 minutes at the county fair, half an hour away in Pecos City. Arriving there, automobiles for the whole party were found already waiting at the depot of this little five-year-old city, and the party was here introduced to the spontaneous hospitality of the South. This was even more evident the next morning at Fort Worth, where a reception committee gave them a trip to the sights of that town which they will never forget. It was startling to see a box car of grain emptied in an elevator in two minutes, and the variety and richness of the grains there stored was a gratifying revelation of the fertility of Texas soil. But the main feature was the chance to study all phases of the cotton industry, from the boll to fertilizers. The visit to the stockyards and the Swift and Armour plants permitted of the inspection of details that could not be seen in Chicago. Of greatest interest was a chart, with specimens, showing the evolution of the cotton industry, and the museums of Europe were enriched by a suite of products, carefully boxed and given to each visitor. Even the compounding of oil was shown, and cottonseed oil refining, ginning, delinting and cottonseed pressing were shown at another plant, and an inspection of a compress and of Fort Worth's pride brewery a hot and busy day.

At this point the visitors felt that they had left the arid West. A summary of their views of America up to that point was given by Professor Knorr, in which he seemed to voice the general opinion that the development of the West was a story of the wonderful fight and triumph of men over great obstacles, with most fortunate results. His tribute was more to the men than to nature. He contended that the men had won by virtue of unbounded industry, persistence, self-reliance "and iron stomachs." It seemed to him that the conditions had evoked the best efforts of unusually hardy pioneers who might have done even more wonderful work if the contending forces had been less strenuous.

In this frame of mind, perhaps, respectfully in doubt as to their willingness to leave the comforts of Europe to join the titanic struggle with the desert, even for the alluring assurance of great gain, they arrived at Shreveport, La. They were taken at once to the Caddo gas and oil field. The first stop was at the great gas well on the east side of the railroad train that has run wild for six years.

At this time the crater of the great well is filled with water and petroleum

emulsion, and in the middle rises a boil of gas 15 or 20 feet high. After the visitors had sufficiently viewed and photographed the phenomena it was ignited to give an idea of the actual amount of gas escaping. The impression on the visitors was certainly a profound one. Regrets at the fearful waste that had been going on for years were heard on all sides, but the well served also to impress them with the conviction that a region which could allow such a wanton waste of fuel must be enormously rich in this material.

At Lewis a gas well yielding some 30,000,000 cubic feet per day was opened for the visitors, and it served again to impress upon them the fuel wealth of the region.

Finally Harrell No. 18, an oil well in the Jeems Bayou tract, was opened for their benefit. The well is yielding about 2500 barrels per day with a great deal of gas, and as it spouted over the top of the derrick the enthusiasm of the visitors was boundless. They were, of course, made familiar also with the advantages of Shreveport as a manufacturing center, and with the cotton, peanut and other manufacturing industries thus far established, but they left for New Orleans fully satisfied with the fuel wealth of the South. The loss of a day by a wreck in Arizona shortened the visit to New Orleans to one day. There every effort was given them to understand the close proximity of salt, sulphur, oil and gas, and they were informed of the recent opening of a 14,000,000-foot gas well near Houma, within 50 miles of the city. These favorable conditions for the development of chemical industries in Southern Louisiana were evident.

Their stop on the following day was at Birmingham, Ala., where the members of the Chamber of Commerce proved most efficient guides and the Tennessee Coal & Iron Co. most hospitable hosts in showing them the iron and steel resources and everything that was possible in the limit of one day.

The following day they were in Atlanta, and again under the auspices of a most efficient local committee, including the State Geologist. They were thoroughly shown the manufacturing interests of the city. They were warmly received by the Governor and the Mayor, and the efficiency of their inspection was much aided by a stereopticon lecture on the natural resources of the State, given by the State Geologist, Professor McCallie.

The next day was spent with the Tennessee Copper Co. at Copper Hill and the Ducktown Copper Co. at the adjacent mine. Here again every detail of the mining and smelting of copper ores from that region and from Cuba was shown to the distinguished visitors, and with most fortunate results.

At Asheville, after the usual courteous reception by the Chamber of Commerce and visits to Biltmore and the beautiful drives around Asheville, the party spent a day at Canton and Waynesville. At Canton they were shown through the pulp mill of the Champion Paper Co., and at Waynesville were driven over almost the entire county.

On Saturday, the 19th, they were the guests of the Greater Charlotte Club in Charlotte, N. C. They visited the Highland Cotton Mill, and then went by special train to Great Falls and Nitrolee and saw a fine example of the utilization of one of the hundreds of water-powers characteristic of the fall line of the Atlantic slope. Here the Catawba River is utilized three times in succession for the development of 30,000 electric horse-power at each plant by a current generated at 2500 volts and stepped up first to 50,000 and then to



100,000 volts. Finally, by an unusual courtesy of the inventor, Dr. Pauling, they were admitted to the plant for the manufacture of nitric acid from the air, and they united in the expression that this was a fitting climax to a wonderful succession of modern manufacturing enterprises.

Now, as to their expressions of opinion concerning the chemical developments of the United States and the prospects:

The smelting plants of the West were comparatively well known to them in advance. The agricultural developments, especially alfalfa, fruit, olives and beets, were a revelation as to what could come from previously arid lands by means of irrigation. Many of the factories were pronounced by them to be, as they expected, so new and novel as to represent the very best practice. In other cases—and this applies to the South, also—they were surprised in this comparatively new land to find plants which were not representative of the latest developments, and it required some study for them to puzzle out the interesting fact that, while these plants were not ideal, they represented the best solution of an equation between the manufacturing processes and the actual trade conditions which had to be filled.

In many cases the manufacturing plants have been built with the realization of the necessity for quick and simple repairs in case of damage by fire of other disasters, and in general the feature which impressed the foreigners was the fact that the plant could be changed in the least possible time and with the least expense to adapt the mills to sudden changes in trade conditions.

They were particularly impressed in general with the skill and rapidity of the work of American labor as shown in the rush work of the cotton compresses in Fort Worth and Shreveport. There were many plants which they recognized as being of the ideal type of efficiency; they expressed themselves in this way particularly concerning the steel mill and its accessories in Birmingham, with the efficient arrangement there for a great water supply; and the by-product coke plant and the constant scientific investigation there in progress to keep this wonderful establishment up to the very latest phase of progress. It is to be regretted that they could not have seen the plant at Gary, Ind., more thoroughly, in order to have a better measure of the efficiency of other steel mills. It is gratifying to know that the metallurgists of the party united in declaring the copper mill at Copper Hill as being in their judgment ahead in efficiency of any copper plant known to them on earth. The reasons for this favorable endorsement are due to the many small details, all of which have been made to work together efficiently in the saving of labor, time, and especially in preventing the waste of heat in the transfer of materials from one stage of the process to another. Another plant which met with the very special approval was the Champion Paper Mill at Canton, N. C. Here spruce, hemlock, pine and other conifers are treated by the sulphite process for the production of long-fiber paper pulp and various deciduous trees are converted by the soda process into short-fiber pulp, both to be used in varying proportion, according to the strength or smooth quality in whatever kind of printing paper desired. Naturally, such a mill is the result of an equation involving many practical features, such as variation in the sources of supply of raw material, the accessibility of the various reagents used in the process, availability of labor and the trans-

portation conditions to the markets where these raw pulps are made into finished papers. The plant has been especially successful in the mechanical engineering, in the construction of the vats for boiling the pulp, in the methods for recovering soda, in the washing of the pulp and its transportation to the bleaching and other stages to the finished wood pulp, and the congratulations were profuse upon the success in this comparatively isolated location which the company has achieved in the utilization of waste products, especially in the manufacture of tannic acid and the saving of spirits of turpentine of unusually fine quality.

The cotton mill visited at Charlotte, where 95 miles of gingham per day were being manufactured during the visit, was a revelation in efficiency, even in the up-to-date methods of dyeing the fibers. This is effected by bringing together the ingredients in the fiber itself for the manufacture of the artificial indigo desired. The power for this plant is transferred from Great Falls, S. C., which place was the next locality visited. It was an important purpose of the tour to give the excursionists an opportunity of grasping the water-power possible on the Atlantic slope, and this was well done by the visit to the water-power development on the Catawba River at Great Falls. Here three water-powers are available within a short distance. Two have already been developed by efficient concrete dams into powers each furnishing 30,000 electric horse-power. The generators directly coupled with horizontal turbines yield a current of 2500 volts; a set of 16 transformers convert this current into 50,000 volts, and at this tension the current is delivered to the adjoining transformer-house, where it is stepped up again to 100,000 volts for delivery to distant points, such as Spartanburg. The greater part of the service is now sent to the cotton mills and other consumers in Charlotte at the medium tension of 44,000 volts. Electricity is sold at two prices, the lower one being for consumers who do not require a guarantee of constant current, but can use to advantage the excess power over the constant demand of other consumers with a guarantee of a given total horse-power per month. The nearest consumer to the power-plant is the new establishment at Nitrolee for combining oxygen and nitrogen of the air, with water, into nitric acid. For the first time in its history others than the members of the company themselves were invited to inspect this plant, where many of the features are still secret, pending completion of patents. It is believed that the inspection was of great mutual benefit, especially on account of the intimate relations of Professor Hoffmann with his former pupil, Dr. Pauling. As indicated in the first part of this article, the party included several chemists who rank as among the prominent experts in this new line of chemical industry, and it was their unanimous opinion that this process includes features which constitute a definite advance over the most improved practice known elsewhere in the world.

What has thus far been said deals with the opinions of chemists concerning the manufactures already developed. The more difficult question to answer is what these chemists think of the South's chemical future and what effect their visit is going to have as an industrial stimulus. It should be borne in mind, in the first place, that at every point visited, direct communication between the manufacturers and these chemists were well established. They were received in the South warmly and hospitably, with no suspicion, and every effort was made on the part of

the manufacturers concerned to co-operate and to show them the resources and what had thus far been done in their development, and to ask in return assistance in the form of advice and co-operation in the extension and improvement of their plants. Such co-operation may be regarded as having been definitely started. In fact, commercial developments as well as technical improvements have been begun by actual business relations tending to the exporting and importing of desired material between the foreigners and Southern manufacturers. The visitors have expressed themselves as thoroughly convinced of the significance of cheap fuel in many places in Texas and Louisiana, and by the fact that sulphur is by no means limited to one locality, as shown by the material brought to them at the train at Toyah, Tex., and the various samples shown to them at other places. They recognize also the large amount of rock salt and other tributary materials in this region, and it was gratifying to hear expressions of their belief that the natural gas of the Caddo field, together with the newer supply near Mansfield and in Southern Louisiana, were certainly sufficient for a period long enough to develop permanent chemical manufacturing. On the other hand, the capitalists and manufacturing men of the South recognize the exceptionally broad grasp of the chemical industries possessed by these men, and the great extent to which they can be of service in industrial development. One technologist confessed that in coming to the United States he had looked forward to the possibility of interesting himself in chemical manufactures, and finally said that after all he had seen, he believed that for a comfortable life, combined with the probability of great advancement in manufacturing lines, he was more satisfied with Louisiana than any other portion of the United States. Another differed with him to the extent of preferring the energetic development of Birmingham, Ala., and several have begun detailed investigations for the development of electro-chemistry with the use of Caddo fuel. They recognize that not only are the conditions favorable for cheap production in competition with other regions, but that the development in the South is sufficiently rapid to furnish a market for which they will be protected by freight rates from foreign or Eastern competition. They are appreciative of the system of inland waterway communication in the Southern States. A few of those on the long tour have made such arrangements as will probably keep them in the United States, while one other has expressed the decision to simply return to Berlin for the purpose of arranging his affairs to locate in this country. As to the lines in which this development should take place, it is easy to predict the introduction of additional expert chemists in the refining of cottonseed oil; in the development of heavy chemicals by electro-chemical methods in Louisiana; the development of dyes and their products from the by-product coke ovens of Birmingham and the extension of this by-product industry to other coke producers; the additional development of by-products of the packing-house industry of Fort Worth, Tex., and other beef centers; the development of the salicylic acid industry; the extension of the tannic acid production. Meanwhile, the younger members of the tour are ready to advise many other foreign mechanical and chemical engineers of the possibilities awaiting them in the South.

The spirit of hearty good-fellowship in which the party left the South is indicated in the short, but pithy, remarks of Dr. J. A. Adan of Brussels, Belgium, at

the closing banquet in Atlanta on October 15:

"Excuse me if I make use of an unaccustomed language perhaps to gain and certainly to hold your close attention. I am glad, as a European, to be allowed to speak here the words of thanks we all feel for the innumerable marks of kindness showered upon us, and specially in Atlanta.

"Since our travel through the picturesque and in the highest grade industries country we have visited has been a successful one, I am very happy to say to you, citizens of the United States, be proud of your physical progress and of your moral advancement of humanity, because in all regards production is the real factor of peace. All occasional friction between peoples must in the very near future disappear, by the advancement of science, improvement of civilization and the distribution of wealth which you have effected.

"It is in this meaning that I call upon my foreign fellows for three cheers for the United States of North America."

### BIG POWER DEVELOPMENT.

**A \$25,000,000 Company to Operate in Virginia and West Virginia.**

The Virginian Power Co. was organized under the Massachusetts laws in September, 1912, for the purpose of acquiring all the lands, water rights, etc., owned or controlled by the West Virginia Power Co., the Dominion Power Co. of West Virginia and the Dominion Power Co. of Virginia, and for the acquisition of other public utilities properties operating in the State of West Virginia. The capitalization of the Virginian Power Co. is as follows: Common stock authorized, \$5,000,000; outstanding, \$5,000,000; preferred stock authorized, \$5,000,000; outstanding, \$1,200,000; first and collateral trust mortgage 5 per cent. bonds, dated October 1, 1912, and maturing October 1, 1942, authorized, \$15,000,000.

The Virginian Power Co. has begun construction of an auxiliary steam-power station on the banks of the Great Kanawha River at Cabin Creek, W. Va., about 12 miles southeast of Charleston. The plant will have a capacity of 15,000 kilowatts, and will be located practically at the mouth of several mines operating at Cabin Creek Junction, from which mines the company can purchase the necessary coal for the operation of its plant. The plans provide for the erection of about 200 miles of transmission lines penetrating the rich Kanawha and New River district coal fields of West Virginia, and it is estimated that the power requirements of the mines located in the district is in excess of 100,000 horse-power. The Virginian Power Co. also owns four water-power sites on the New River, as follows:

Drainage area.	Available power.
4129 sq. mi. Bull Shoal.....	100,000 kilowatts
4400 sq. mi. Bluestone.....	125,000 kilowatts
5300 sq. mi. Richmond Falls..	15,000 kilowatts
6250 sq. mi. Gauley Junction.	30,000 kilowatts

The company has already commenced the construction of a dam at Bull Shoal, the plans providing for the erection of a dam 125 feet in height, with a crest length of approximately 1400 feet. Through the erection of this dam the water will be backed up a distance of about 28 miles. Mr. Charles O. Lenz is chief engineer of the company.

### National Nut Growers.

At the convention at Gulfport, Miss., October 30-November 1 of the National Nut Growers' Association, J. F. Wilson of Waycross, secretary, there will be an exhibit of pecans designed to show the expansion of the growing of the nut.

# Congress' Opportunity for Improvement of Waterways

By ALBERT H. SCHERZER of Chicago.

There have been very few times in the history of the world when a legislative body has had so great an opportunity of benefiting mankind for centuries to come as has the House of Representatives of the United States in making adequate provision for the improvement of our waterways.

Under the Constitution of the United States the House of Representatives initiates the ways and means of providing the funds necessary for the performance of its duty by the United States Government, whatever that duty may be. It may be the purchase of a \$10,000,000 battleship or it may be providing \$2,000,000,000 or \$3,000,000,000 for carrying on a great destructive war, as was the case 50 years ago during the Civil War, or it may be increasing the pension appropriation from \$150,000,000 annually to a much larger sum.

It is evident that an appropriation of \$600,000,000, or one-half of 1 per cent. of our national wealth, during the next 10 years in the improvement of our great rivers and harbors will only result in increased wealth and national prosperity, and will be an extremely small sum compared with the very large appropriations for destruction of life and property 50 years ago.

Today the great river systems are almost in the primitive condition they were in when the United States was inhabited by the Indians. In some respects their condition is more serious because many of the forests have been cut down and the loss of life and property from destructive floods has become greater. In striking contrast to the high development of the railways by private enterprise, these uncontrolled and crooked waterways, the most valuable property entrusted to the care of the Federal Government, do not reflect a high stage of civilization. In a civilized country, such as the United States, land and other property is entrusted to individuals to use and exercise proper dominion over the same. Should they neglect or abuse their trust, and thereby injure the lives and property of adjacent owners, they are compelled to compensate in damages. If such neglect or misuse causes the destruction of life, they are subject to even more severe punishment. Cases of adjacent owners securing compensation for damages from neglect are frequent. A railroad official who would neglect a water tank, reservoir or embankment and allow any of them to spread out and destroy the lives of adjacent owners of land would be held responsible in the civil and even more drastic courts. There does not seem to be any provision in the Constitution of the United States which exempts Federal authorities from duties and responsibility for the property entrusted to their care. It is a well-known fact that a number of people in the United States lose their lives and property through floods caused by rivers annually overflowing vast areas of adjacent lands. The most destructive river in this regard is the Mississippi, our greatest river, because it is not controlled and confined to a definite channel. It wastes and makes useless more than 20,000,000 acres of fertile land, also limiting and making hazardous its proper use for navigation.

How easily this great river can be controlled and converted from an agent of destruction to an asset of almost inconceivable usefulness and wealth-producing effi-

ciency for ages to come has been briefly stated by Lyman E. Cooley, one of the world's most able and experienced engineers, who has studied this problem for more than 30 years, in the short, powerful words: "Twenty-four feet of water can be had from the Gulf of Mexico to the Gulf of St. Lawrence, 3300 miles, for less than the cost of the Panama Canal." Canada, with an unfavorable climate and only 7,500,000 population, is more active than the United States, with 95,000,000 population, and has already built the first section of this great waterway from the Atlantic Ocean through the Gulf of St. Lawrence and St. Lawrence River to Montreal, nearly 1000 miles inland, 32 feet deep. More than 10 years ago it completed a 14-foot channel from Montreal to the Great Lakes, and is now engaged in enlarging the 14-foot channel to a 26-foot channel. Within the United States the city of Chicago has already built another section of this great waterway from Lake Michigan to Joliet 24 feet deep and 40 miles in length, at an expense of \$70,000,000. The continuation of this channel from Joliet to the Gulf of Mexico through the Mississippi Valley 24 feet deep, as stated by Mr. Cooley, can be built for less than the cost of the Panama Canal, and with the Panama equipment now available can be completed very rapidly.

Ten billion dollars will not measure the resulting benefit to the United States in the next 10 years from this comparatively small investment. It is as impossible for the Federal Government to perform these great public duties entrusted to it by the people without a bond issue as it would be for a railroad company to attempt to build a great railroad without bond issues. The Federal Government has at its command a most able organization to perform its duties to the great rivers and waterways of the United States, the Corps of Engineers of the United States Army, but these highly educated and able men are absolutely powerless to do anything whatever unless provided with the necessary funds. No railroad president or individual expects his engineers to secure great results in railroad construction unless he provides them with the funds necessary, at high interest rates compared with the very low rates in favor of the United States Government.

Nearly \$25,000,000 have already been deposited by the people in the postal savings banks, costing the Government less than 2 per cent. interest. These trust funds will multiply rapidly. For constructive purposes in the line of its duty the United States Government can obtain almost unlimited funds by issuing bonds at low rates of interest. These bonds become the basis for increased circulation and are a much better asset than the bonds issued at high rates of interest for war and destructive purposes.

If the House of Representatives does not act the Mississippi River will continue to be an agent of destruction and waste, and great financial losses will continue indefinitely. If the Congress does act there is nothing to prevent this great public improvement, with its radiation of prosperity to the entire population of the United States, from being completed rapidly. When completed the national wealth will have increased to \$150,000,000,000. The Mississippi Valley will thrive with industry and be enabled to

support more than double its present railway capital. The national defense will be greatly strengthened and the North and South will be more closely united.

Chicago, October 10.

## Life-Saving Appliances for Army Transports.

In order that the \$300,000 appropriation available for fitting out United States Army transports with lifeboats, rafts and other life-saving appliances may be expended in a manner to produce the best results, a Board on Lifeboats and Appliances is now holding a meeting to extend over several days on board the army transports at Newport News, Va.

This meeting is proving of great importance, and has attracted a considerable number of recent inventions as well as many that have already been in use. The subject is considered of such importance to the War Department that the transport Kilpatrick has been temporarily fitted out at the expense of the inventors with a number of lifeboats, rafts, life-saving mattresses, a mattress raft, patent davits, patent detaching hooks and other forms of detaching apparatus for boats, etc., and a part of the demonstration consists in actually loading and lowering the boats under open sea conditions with the transport under various speeds or stopped. The mattress raft remains at Newport News, weighted in the water to test its endurance for floating.

The results of these extensive and costly demonstrations and tests will prove of value not only to the Government vessels, but to freight and passenger vessels as well.

The board consists of Col. Chauncey M. Baker, Quartermaster Corps, United States Army, president; Inspector-General George Uhler, United States Steamboat Inspection Service; Captains Lathrop, Oliver and McKay of the Army Transport Service; Marine Engineer George A. Anthony of the Army Quartermaster's Office, secretary of the board.

## West Virginia Pottery Plants.

The Edwin M. Knowles China Co., manufacturer of semi-vitreous porcelain, East Liverpool, O., has increased capital stock to \$500,000, and writes to the MANUFACTURERS RECORD as follows:

"The Edwin M. Knowles China Co. is erecting a plant at Newell, W. Va. The buildings are approximately 285x700 feet, containing clay shops, kiln, glaze and decorating departments. Construction will be of fire-brick walls, concrete floors and felt roof. Every modern convenience in sanitation, ventilation, heating and lighting will be installed. The entire plant will be sprinkled with a dry pipe sprinkler system. Electric motive power will be used. A two-phase alternating-current generator, directly connected, will be installed. The company hopes to have the most up-to-date plant for the manufacture of pottery in the world. The president, Edwin M. Knowles, is the son of Isaac W. Knowles, one of the pioneer potters of America. Joshua Poole, vice-president, is a potter of many years' experience in England and America. Thos. B. Anderson, secretary and general manager, is also a practical potter. J. W. Irwin, treasurer and sales manager, has had years of experience in this department. Newell is a new town on the West Virginia side of the Ohio River, opposite East Liverpool, O. This town (Newell) now has the distinction of having, among its varied industries, the plant of the Homer Laughlin China Co., the largest single pottery in the world."

Referring to Laughlin plant enlarge-

ment, the Homer Laughlin China Co., East Liverpool and Newell, wires the MANUFACTURERS RECORD from East Liverpool as follows:

"Propose additional plant: 15-kiln pottery for making chinaware; 600x300-foot brick building, one and two stories high; cost about \$200,000; machinery alone cost about \$50,000; will employ about 400 men."

## Improvements on West Coast of Florida.

The West Coast of Florida is to be congratulated that Sarasota Bay is to have a modern fireproof \$250,000 hotel. The building of this hotel will stimulate other places on that coast to provide thoroughly modern up-to-date resort hotels. Ample tourist business awaits every new and first-class hotel which can be built at the many splendidly located resort places which dot the whole West Coast. The hotel to be built at Sarasota will be constructed by Mr. John F. Burket, who has lately located at that point Eastern and Western associates. The Belle Haven Inn property has been bought as a site. This property has a frontage of 700 feet on Sarasota Bay, and runs back 250 feet, with a frontage of 756 feet on Palm avenue. The Sarasota section is where Mrs. Potter Palmer has purchased over 100,000 acres of land, which will be in part colonized on a large scale with well-to-do people, and here she will build a splendid home that promises to be one of the show places of America.

## For Municipal Docks at Jacksonville

H. H. Richardson, secretary Board of Trade, Jacksonville, Fla., writes to the MANUFACTURERS RECORD:

The Florida Legislature, in special session on October 1, 2 and 3, passed the bills necessary to authorize the city of Jacksonville to own, operate and control municipal docks. This bill provides for an issue of \$1,500,000 in bonds and the election of 15 port commissioners. The bonds, however, will have to be submitted to a vote of the people on January 21 next before anything further can be done. We expect, however, that we shall secure a majority in favor of bonds at that time. At the same election there will be elected the 15 port commissioners.

"One of the bills passed by the Legislature granted the right to the city to use the middle ground in the St. John's River. Should this plan be adopted, it is estimated that 200 acres of land can be reclaimed and bulkheaded with reinforced concrete, giving a frontage of two miles on each side of the peninsula at an expense of about \$1,000,000."

## A \$1,000,000 Alfalfa Company.

The Town Creek Alfalfa Co., West Point, Miss., has been incorporated with \$1,000,000 capital stock to cultivate alfalfa in Clay county. It was incorporated by Gates T. Ivy and B. H. Strong.

Richmond, Va., is planning to hold, February 16-23 next, its first automobile show, and of the 13,000 square feet of floor space available, all but 2400 square feet has already been contracted for.

It is estimated that the canneries of Talbot county, Maryland, have packed this year 660,500 cases, valued at \$1,076,000, of which 476,000 cases are of tomatoes and 140,000 cases of corn.

The San Antonio, Uvalde & Gulf Railroad Co., which is 210 miles long, is organizing an industrial and immigration department.



# The Sherman Act and the Cement Industry.

By EDWIN C. ECKEL, Consulting Engineer, Washington, D. C.

The relatively recent decisions of the United States Supreme Court in the Standard Oil and American Tobacco cases are, of course, of particular importance to the American Portland cement industry. This is true, even though in that industry no stable form of combination or price regulation has as yet been developed. The necessity for securing some degree of stability in the cement trade is obvious enough, and it seems as if some consideration of the possibilities would now be timely.

It is difficult, as well as rash, for a layman to attempt to summarize adequately the probable effects of the court decisions referred to above, particularly in view of the fact that legal discussion of the subject has not been extensive. It is perhaps more difficult to attempt to formulate the conditions under which successful control may be established in the future. In making this attempt, however, the writer is actuated by the belief that it will be a long time before it will be possible to extract positive constructive advice from purely legal sources, and that after all it is obvious that action in cases of this kind must be determined by business necessities and not by wavering and uncertain opinion.

The most striking feature of the Standard Oil and American Tobacco decisions was the use of the words "reason" and "reasonable" at a number of points in each. These words attracted the attention of the phrase-maker, could readily be turned into catching headlines, and were therefore the almost exclusive feature of general editorial comment. In the course of the chase after the elusive "rule of reason," few commentators appear to have noticed a very striking though incidental reference by the Chief Justice, which is quoted and discussed below.

The following statements as to the scope and effect of the decisions seem to be justified, though it must always be borne in mind that they are based simply on the assumption that the texts of the decisions are sufficiently clear to be comprehended even by an engineer.

1. The court holds that the words "restraint of trade," as used in the Sherman anti-trust act, are to be interpreted in the light of general usage and common-law practice at the time of passage of the act. This does away with the very recent assumption that the Sherman act defined some new offences, and appears to appreciably weaken its importance as an act under which to prosecute holding companies. It will always be serviceable, however, as a popular catchword for use in a "trust-busting" campaign.

2. The court further holds that acts in restraint of trade are to be judged with respect to their intent and effect, rather than with respect to the particular form in which they are clothed. This also appears to indicate that there will be no particular advantage in taking up a case under the Sherman act, since the common law always offered an adequate remedy for criminal restraints.

3. The court mentions "reasonable restraint of trade," and by inference allows it to be assumed that such reasonable restraint may be legally sound, the Sherman act to the contrary notwithstanding. It does not attempt to define or illustrate its conception of such "reasonable" restraint, in view of the fact that it holds certain acts of the defendant companies to have

been of distinctly illegal character, even under the common law.

4. By inference, rather than by direct expression, the court appears to create a new uncertainty as to whether the mere possession of the power to restrain trade unreasonably can be taken as prima facie evidence that such use of the power is intended, and that the corporation or combination possessing such power is necessarily illegal in form. In recent years an opinion has gained ground that simple ownership by a corporation or combination of a certain majority percentage of the production in any line is or should be of itself considered an illegal act. This opinion, which never had any very definite basis, seems to be controverted by the court. Popular feeling on this particular phase of the subject is so intense, however, that it is improbable that advantage will be taken of this situation.

5. It has already been mentioned that the court did not expressly define the term "reasonable restraint of trade." The Chief Justice, however, made a purely incidental but rather illuminating reference in the course of his discussion of the Tobacco case, which seems to deserve more attention than it has received. The statement was as follows:

"Thus the Government, for the purpose of fixing the illegal character of the original combination which organized the old American Tobacco Co., asserts that the illegal character of the combination is plainly shown because the combination was brought about to stay the progress of a flagrant and ruinous trade war. In other words, the contention is that as the act forbids every contract and combination, it hence prohibits a *reasonable and just agreement made for the purpose of ending a trade war.*"

Of course, these words cannot be acceptable as conclusive, in view of the fact that they form no part of the decision in the case specifically under consideration, but the phrase which I have italicized is of interest as throwing some light on the probable attitude of the court in dealing with certain phases of the price-regulation problem.

## The Present Condition of the Cement Industry.

Postponing for the moment consideration of the possibilities for future control of the industry which are offered by existing laws, it will be of advantage to briefly summarize the present conditions in the American Portland cement industry in so far as these conditions relate to our subject.

It is obvious, first of all, that we are dealing not only with an industry of great commercial importance, but with one which is still in vigorous growth. Some time ago in the *Engineering Magazine* this phase of the subject was discussed in some detail, and it was there pointed out that in tonnage produced and in actual capital employed the cement industry was about half as large as the iron industry; that in capital employed it outranked copper, and that in rate of growth over the past two decades it entirely outclassed all the other great industries.

From this prefatory statement it might naturally be expected that the profits of the industry were correspondingly encouraging. But here a difficulty is encountered. For several years the selling price of cement has averaged so low, particularly in the East, that profits have been unduly

small or entirely lacking. In the writer's opinion, not over 10 per cent. of all the cement made since 1908 was marketed at a price to yield a reasonable interest on the investment. Such profits as were made were shown by plants, usually small, with unusually well-protected market areas.

As against this, however, must be set the fact that basically the cement industry is probably in sounder condition than at any time since 1905. It is true that surplus accounts have melted amazingly; that profits are small, and that dividend checks have practically disappeared from circulation. But, on the other hand, a number of weak plants have been extinguished, few new promotions have taken place, and the majority of existing companies are operating on a more economical basis than ever before. Conditions are thus promising for a distinct improvement in the industry, but in order that this improvement may hold it is necessary that something be done in the way of integrating the business. Otherwise, the profits that may be made during the period of general trade improvement will assuredly be lost again during the renewed trade war that will inevitably break out with the first sign of business slackening.

Before taking up the possibilities of further legal co-operation, it will be well to glance over existing conditions from this viewpoint, and see what has already been accomplished.

All of our larger cement companies have followed practically the same course of evolution, though Sandusky showed one important difference and failed to fall into one otherwise universal error. The first stage in each case was the successful manufacture of cement at some fairly good location. The next stage in each case, except Sandusky and possibly Universal, was to heavily increase mill capacity at this initial point until it was ridiculously overbuilt. The third, and present stage, was to spread out in area, placing new mills nearer to new markets. Five years ago it would have probably been a fair criticism to say that most of our cement manufacturers had fallen into a state of mental confusion as regards capacity, and that they persistently failed to recognize that there was a possible distinction between large companies and large mills. Today conditions are better in this regard, and it is generally understood that there is no necessary economy in overlarge units, so long as each unit is merely a new item in the control of an already large company.

The extent to which the process of spreading out geographically has taken place is best exemplified by studying the distribution of the mills of the seven companies which have developed to this stage. They are as follows:

1. Atlas Portland Cement Co.; mills in Eastern Pennsylvania, New York and Missouri.
2. Universal Portland Cement Co. (subsidiary of United States Steel Corporation); mills in Illinois, Indiana and Pennsylvania.
3. Lehigh Portland Cement Co.; mills in Eastern Pennsylvania, Western Pennsylvania, Ohio, Indiana, Iowa and Idaho.
4. Alpha Portland Cement Co.; mills in Eastern Pennsylvania, New Jersey, New York and West Virginia.
5. American Cement Co.; mills in Eastern Pennsylvania and Virginia.
6. Sandusky Portland Cement Co.; mills in Ohio, Indiana, Illinois and Pennsylvania.
7. Iola Portland Cement Co.; mills in Kansas, Texas, Iowa and Tennessee.

It should be stated that the method of control varies in the above list. In some cases all the mills are owned outright by

the companies named; in other cases the relationship is that of holding company and subsidiary, while in a few instances stock control of the new mill was given direct, not to the original company, but to its stockholders. The final effect is much the same. In addition to the seven companies above cited, there are several instances of alliance through stock control, particularly in the Western States.

The seven companies noted in the above list account for considerably over half of the total American production of Portland cement. As a matter of interest, it may be added that they represent only about one-quarter of the total capitalization of American cement companies. The strongest companies are, therefore, relatively undercapitalized, a fact of interest both for its obvious moral and for its possible effect on the future control of the industry. This latter feature of the situation will be referred to later in the third section of the present paper. Considering for the moment only the existing situation, without regard to the possibilities of further consolidation, it can readily be seen that, other conditions being equal, the widely-spread companies in the above list possess distinct and legal trade advantages over companies whose trade is confined to single areas. Under all conditions there will be a heavy saving from the avoidance of cross-freights, while under the critical condition of trade depression we have always found that it does not affect all portions of the country simultaneously or equally. In times of prosperity the companies with scattered mills will make more; in time of depression they will lose less. The ultimate result of this process, carried out over a succession of booms and depressions, seems to be fairly certain.

## The Possibilities of Future Control.

It has been noted in the introduction to the present paper that the cement industry has a deep interest in the interpretation of the Sherman act, and in the probable attitude of the courts with reference to price regulation and to combinations. This interest is due to the unfortunate situation with respect to prices, with which American cement manufacturers have been struggling during the past four or five years. It is accentuated by the fact that in the three foreign cement-producing countries with which our manufacturers are brought into closest contact, serviceable combinations have existed for some time. In Canada and in England these have taken the form of amalgamation controlling the greater part of the output, while in Germany the kartel system is not only permitted, but encouraged by law.

The United States, however, offers distinct legal inducements to the manufacturer to commit either commercial murder or commercial suicide. Public opinion is still apparently in favor of the most merciless type of competition, and it is regarded as being infinitely more respectable to sandbag your competitor than to meet him at dinner.

The natural result of antiquated theories of legal control, when superimposed on a modern industrial situation, has been that evasion of the law has been almost universal in all large-scale industries. From the viewpoint of public morality this is an evil condition of affairs. From the viewpoint of company management it is worse than evil—it is ridiculous; for the expedients adopted have commonly been as futile as they were illegal.

## The Advantages of Control.

Before going on to consider the conditions which favor and those which limit the adoption of various remedies for existing difficulties in the cement industry, it will be well to attempt to define broadly

the advantages which might fairly be expected to result from further integration in that particular business. The following improvements in conditions might reasonably be hoped to follow such change:

1. Average prices could be kept at such a level as to yield a fair manufacturing profit to well-operated mills.

2. Steadiness in prices could be secured, so that the engineer and contractor could estimate safely on future work.

3. Cross-freights could be materially reduced, with a resultant saving which would ultimately be divided in some proportion between the manufacturer and the consumer.

4. The expense of competitive advertising and selling would be reduced.

5. Technical conditions would be improved, for experimental work by one mill could be utilized by all in the group.

6. Trade wars would be avoided. The experience of the past five years has given several examples of entirely useless quarrels of this sort. In part they are due to a generally hysterical condition which seems to attack every industry at intervals. In larger part they originate from the efforts of weak companies to change cement into cash, or from the appearance of new producers in a settled market. Occasionally they arise when a successful manufacturer, tired of the excitement, wishes to cash in his chips and quit the game. We have had one well-known example of this in the iron industry, and it seems probable that at least one large cement company is willing to follow in the footsteps of our great philanthropist.

7. General trade conditions could be treated uniformly and sanely. Such matters as credits, claims, bag allowances and cancelled contracts would be handled along better business lines. At present each mill is afraid to be too rigid in such things, fearing to lose business to a competitor.

It would seem that the possibilities of improvement which could be realized by a more centralized control in the cement industry are sufficient to justify considerable trouble in securing such control. It remains to consider what conditions at present existing will operate to either favor or limit the possibility that a sufficient degree of control can be secured and exercised.

#### Conditions Favoring and Limiting Control.

In considering this subject it seems hardly necessary to say that whatever form of control is finally evolved must be not only legal, but wise. There are at present possibilities which at the moment are within the letter of the law, but which no prudent man would attempt to utilize. In view of the recent court decisions it seems as if a huge corporation, possessing at its inception absolute control over the industry, would be subject to successful legal attack only when actually criminal acts could be proven against it; but it would be highly unwise to take advantage of this situation. The existing state of popular feeling and the probable trend of future legislation must be considered. It is the writer's belief that in future we must expect to have corporate activities subjected to public control in an increasing degree. The form which this control will take must depend largely on the attitude taken by those interested. If the manufacturer opposes all regulative legislation, the result will be worse than if he aids in shaping such legislation into conformity with modern industrial requirements.

The following conditions must be taken into account as either favoring or limiting the form and degree of control which can be expected to develop in the cement industry:

1. Pools or price agreements, whatever their form or degree of complexity, are illegal, and therefore inoperative. The writer still sees no reason to change a belief expressed some years ago, that in an industry containing a large number of small and independently financed units it is idle to expect adherence to any agreement which is not legally enforceable. The cement business at present is an industry of this type.

2. On the other hand, if preliminary consolidations reduce the number of competitive units to a manageable limit, at the same time increasing the average size of these units, the situation is distinctly improved. An industry containing only half a dozen competitive units can expect fairly honest adherence to some understood price policy, even in the absence of a definite agreement. This is not only because it is easier to find six honest men than sixty, but because the increase in size of the units presupposes increased banking resources. With the increasing centralization of our banking power, and with increased appreciation of the industrial utilization of bank credits, there is a decreasing possibility that the nominal heads of large industrial companies will act so as to force a trade war.

3. A single large corporation, formed to include all, or practically all, of the existing mills might be legal in form, but would be certainly unwise. Further than that, the head of one of the larger companies has recently pointed out that even a purely local monopoly is probably open to similar criticism, owing to the extent to which freight rates on such a bulky product as cement prevent competition. For example, a combination of all the companies in the Lehigh district and on the Hudson River might prove to be an absolute monopoly so far as an important market area is concerned, even though it might not control over 40 per cent. of the entire American output.

4. The ownership of important patents is a valuable asset, but the use of even sound basic patents as a means of price control is of doubtful legality and of certain un wisdom. The writer has always believed that such a use of patents was open to attack from the inside by the holder of even a single share in any of the companies involved. More recently other doubts have been expressed as to the legal status of this device. In any case it must be remembered that there is nothing peculiarly sacred about our patent laws, and that persistent misuse of their protection would ultimately result in such remedies as are now applicable in Canada.

5. The abundance of raw materials for the manufacture of cement makes it impossible to utilize control of natural resources, even locally, as an element in the control of the industry. There are, of course, portions of this country where limestone is relatively so scarce that it is possible for one company to secure control of the entire local supply of raw materials, but these cases are so exceptional that they cannot enter into any general consideration of the question. Taking the country as a whole, we cannot expect control of raw materials to be a serious factor in the matter.

#### The Possible Forms of Control.

The preceding summary of the conditions which now, respectively, favor or limit the integration of the cement industry has served at least to point out that certain bases for control are lacking, and that others are either illegal or unwise. At the present moment it is difficult to go farther than this, and to attempt to formulate a constructive program. There is still, of course, the possibility that a revision of our existing "anti-trust" legislation may

be near at hand, and in that case any statements based on present conditions would be of little service.

Assuming, however, that business may in future be still forced to struggle along under existing statutes, it is at least conceivable that some attempt will be made to reduce the excessive competition which has been so expensive to the cement industry. As pointed out above, such attempt cannot be based on control of raw materials; it cannot be commercially successful if it takes merely the form of a pool, and it would probably be unwise, though not illegal, to put it in the form of a single large consolidation. On the other hand, most of the difficulties which at present exist would disappear if, instead of one hundred or so competitive companies, the industry by a series of relatively small consolidations came into the hands of four or five separate units. In this case each unit might have representation in every important market, so that proper competition would be existent. No unit would, on the other hand, control over 20 per cent. of the entire output of the country, and none would be in absolute control of any large district. A grouping of this kind would appear to be at once legally possible and commercially manageable.

#### BIRMINGHAM IRON MARKET.

##### Concern About the Delivery of Iron Now Already Booked.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., October 21.

Those interested in the local industrial situation are just now chiefly concerned in the matter of delivery of the tonnage already booked, and in maintaining the rate of production effected in the past few weeks. In this the scarcity of railway equipment is quite an item, although the shortage of labor, with the attendant shortage of the necessary raw material, is probably the most significant.

In the pig-iron market very little business is being transacted; in fact, the sales for the past week involved a very small tonnage; but delivery against all contracts are being urged, and, notwithstanding the extent to which all order-books are now filled for advance delivery, the volume of inquiry from all sections of the trade gradually increases. This last is largely in the form of "feelers," but as is indicated by the present rate of consumption, the fact remains that the trade is not covered to the extent shown by furnace order-books. In the absence of sales, the prices ruling cannot be determined with accuracy. It is not believed that any additional tonnage is available at the \$13.50 per ton Birmingham schedule, while, as indicated in last report, the majority of the producing interests are in position to ask \$14.50 per ton at Birmingham for such tonnage as can be delivered within a reasonable length of time. Those parties most conversant with the situation are of the opinion that a basis of \$14 at Birmingham for No. 2 foundry can be considered the market price for any delivery in the remainder of the year and through the first half of next year, although at this time only one concern makes quotations on such a basis and limits the period for delivery to the first quarter. The asking price for all low grades is very uncertain. A canvass of all furnace yards shows but a small accumulation of Nos. 3 and 4 foundry, while no stock of gray forge and mottled is apparent. Commitments for this last can only be made conditionally, and, of course, the price is governed by the local conditions at the furnace plant. One additional furnace is being blown in on foundry iron today, and still another is to be blown in as soon as repairs can be completed, while

a third stack is to be blown in about November 1. These additions will, of course, affect the market price to an appreciable extent, yet with the present rate of production, as represented by 14 active stacks, one large producing interest has nothing to offer for delivery in the first half; a second is oversold for the first quarter; a third does not quote for any delivery; a fourth is disposed to sell only for one month in advance of the production, and a fifth adheres strictly to a basis of \$14 at Birmingham for delivery prior to the second quarter. In view of such conditions, it is reasonable to believe that the present level of prices will be maintained.

The demand for charcoal iron has increased with the shortage of railway equipment, and prices have advanced accordingly. The most favorite brands of warm blast charcoal are now quotable at \$23.50 to \$24.50 per ton at furnace, and the output is being well taken care of. The prices named would probably apply to deliveries over the first half of next year, although, as in the case of foundry iron, the scarcity of raw material and the probable increased cost of fuel must be taken into consideration.

No recent report has been made of the sale of basic from local operations, and in view of the heavy consumption at Ensley and Alabama City, Ala., solicitations are not being made. The asking price for this grade would be maintained in line with the ruling price for No. 2 foundry.

The market is quoted as below, and while the trading is light, the conditions existing are quite satisfactory to the producing interests: No. 1 foundry, \$14.50 to \$15; No. 2 foundry, \$14 to \$14.50; No. 3 foundry, \$13.50 to \$14; No. 4 foundry, \$13 to \$13.50; gray forge, \$12.50 to \$13; standard basic, \$14 to \$14.50; charcoal iron, \$23.50 to \$25.

Owing to the condition of order-books, local finished material producers have not been in position to take advantage of the recent advances in price for the several products. Specifications against all contracts have been very heavy, and, notwithstanding the rate to which the production has been increased, the local capacity is from 8 to 10 weeks behind with delivery.

In the coke market a further advance for Virginia and West Virginia brands offered in this territory is noted, while all local brands of foundry and furnace grades are stronger. The local production is at a larger rate than for some years past, and, of course, with the additional furnace capacity as is proposed, a still larger output will be required. Alabama 72-hour coke is very firm at \$3.50 to \$4 per ton at ovens, except in contract considerations. This last could no doubt be entered at \$3.25 to \$3.75 per ton. All 48-hour and retort coke is quoted at \$2.85 to \$3 per net ton at ovens, and for certain brands of by-product coke \$3.25 per ton at ovens is asked.

Steam coal is moving in volume equal to the output from all operations, and spot deliveries are bringing premium prices. This applies more particularly to New Orleans and Mobile territory, and is due largely to the inability of the railroad companies to make delivery. Practically all operators are behind on delivery of domestic coal, while the receipts at dealers' yards are larger at this stage of the season than at the same time last year. With the pronounced shortage of anthracite, the demand for the best grades of domestic is unusually strong at all Gulf points, although the demand for anthracite is being met to a certain extent with foundry and gashouse coke.

In the cast-iron pipe market the largest requirement recently placed was 1500 tons of water pipe for the city of Bakersfield.



Cal. A very attractive volume of small orders have been entered since last report, and for such business a higher average price than quoted was received. It is noted that all producers are behind with deliveries, and that more or less inconvenience is being experienced in raw material receipts as well as in securing the necessary labor for the several operations. The organization of the National Cast Iron Pipe Co. for the erection of a large water-pipe plant at Boyles, Ala., is an item of especial interest in this market. The plans for this proposal have not yet been worked out, but it has been announced that some \$350,000 will be expended. This, it will be noted, is the second pipe plant proposed for the Birmingham district within the past 30 days, which is in addition to a smaller soil-pipe plant which is now being gotten ready for operation. The undertakings proposed are directly the result of the improvements contemplated, and which will be realized, in the South, although the advantages afforded local operations over those operations in the North and East as to the trade generally is, of course, a consideration. Just at this time the most serious drawback to industries of the kind referred to is the scarcity of labor and the lack of railway facilities. Such conditions are gradually improving, and will no doubt be more favorable by the time the plants to be erected are in operation. Water pipe is quoted as follows per net ton f. o. b. cars here, viz.: Four-inch, \$24.50; 6-inch and up, \$22.50, with \$1 per ton extra for gaspipe. These prices will no doubt be advanced as soon as the present price of pig-iron becomes effective with the pipe-producing interests. Special pipe fittings are quoted at \$50 to \$55 per net ton at foundry.

The present condition of the old material market is quite satisfactory to dealers, except for the difficulty in assembling the grades demanded. The movement from all local yards has been much larger during the past weeks than formerly, and the margin of prices is larger. A very attractive volume of inquiry is now pending from the St. Louis and Cincinnati territories, while some tonnage of wrought and steel is required for the Eastern territory. The local consumption requires the available tonnage of light cast and machinery grades, as well as certain steel grades, and has taken care of the tonnage of old car wheels, iron axles and relaying rails. Dealers' asking prices are about as follows per gross ton f. o. b. cars here, viz.:

Old iron axles, \$15.50 to \$16.  
Old steel axles, \$13.50 to \$14.  
Old iron rails, \$13 to \$14.  
No. 1 railroad wrought, \$12.50 to \$13.  
No. 2 railroad wrought, \$11.50 to \$12.50.  
No. 1 country, \$9.50 to \$10.  
No. 2 country, \$7.50 to \$8.  
No. 1 machinery, \$10.50 to \$11.50.  
No. 1 steel, \$10 to \$11.  
Tram car wheels, \$9.50 to \$10.  
Standard car wheels, \$12 to \$12.50.

Light cast and stove plate, \$8.50 to \$9.  
A contract for 2000 tons of structural steel to be used in the erection of the Jefferson County Savings Bank building at Birmingham has just been placed with the Virginia Iron & Bridge Co. of Roanoke, Va. The foundations for this building are already under way and the steel work will be commenced as soon as practicable.

Additional rail orders aggregating 140,740 tons to be rolled at the Ensley (Ala.) plant of the Tennessee Company are officially announced, and are for delivery during the early part of 1913 to the following roads: Louisville & Nashville, 90,000 tons; Atlantic Coast Line, 19,740 tons, and Harriman system, 31,000 tons.

## GOOD ROADS

### WEEK'S HIGHWAY RECORD.

#### Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department, published elsewhere in this issue.]

#### Bonds to Be Voted.

Corsicana, Tex.—City votes October 29 on \$20,000 bonds for paving.

Nevada, Mo.—City will vote on \$20,000 bonds to construct section of North and South road.

Plant City, Fla.—City votes November 2 on \$25,000 bonds for street paving.

Richmond, Tex.—Fort Bend county votes November 5 on \$350,000 bonds for road construction.

Wichita Falls, Tex.—City will vote November 5 on \$22,000 bonds for street improvements, etc.

Wise County, Va.—Gladeville district will vote on bonds of \$125,000 to \$165,000 for grading and macadam.

#### Contracts Awarded.

Alexandria, Ala.—Calhoun county awarded contract to construct two miles of macadam road.

Checotah, Okla.—City awarded contract at \$10,000 for sarcolithic mineral rubber pavement.

Gulfport, Miss.—Harrison county awarded contract at \$1000 to construct three miles of road.

Jeanerette, La.—Southwestern Traction & Power Co. awarded contract at about \$16,000 to concrete trolley track.

Kissimmee, Fla.—City awarded contract to construct six miles of sidewalks.

Laurel, Miss.—City awarded contract at \$47,892 for paving 17,000 square yards of street with creosoted wooden blocks.

Morristown, Tenn.—City awarded contract at \$24,965.70 to lay seven blocks of paving in business district.

Muskogee, Okla.—City awarded contract at \$8800 to pave street with bituminous concrete.

Oklmulgee, Okla.—City awarded contract at \$20,000 for asphaltic concrete pavement.

Orange, Tex.—Green Godwin has contract for completion of trans-Calcasieu road, about three miles.

Rockford, Ala.—Coosa county awarded contract to grade, drain and surface with top soil six miles of road.

#### Contracts to Be Awarded.

Alvin, Tex.—City will improve streets at cost of about \$7000 after completion of drainage system.

Baltimore, Md.—Paving Commission prepared list of streets to be improved during 1913, calling for about 70 streets, or 30 miles of paving.

Birmingham, Ala.—City received bids until October 22 for 2400 square yards paving.

Bonham, Tex.—City opens bids October 25 for about four blocks Oklahoma rock asphalt pavement; \$35,000 available.

Charlotte, N. C.—City receives bids until October 30 to construct about 52,781 square yards paving and Roman road pavement.

Charlotte, N. C.—City received bids until October 23 to pave sidewalks; 1040 square yards concrete walk, 1200 cubic yards grading and removal of 56 trees.

Dade City, Fla.—City has \$27,000 available for improvements to certain streets.

Gaffney, S. C.—City opened bids October 21 to pave 5000 square yards cement

sidewalk and about same amount linear feet curbing; about \$6000 available.

Gonzales, Tex.—Gonzales county opens bids November 15 to construct proposed (about) 75 miles gravel and sand-clay roads.

Louisville, Ky.—City will construct granitoid sidewalks at cost of about \$2000.

Pikeville, Ky.—City will construct 25,000 square yards street paving.

West Point, Miss.—Supervisors' district No. 1 will let contract November 8 for grading and surfacing about nine miles of highway.

### STUDYING A NEW PROCESS.

#### Demonstration in Good-Roads Building in Louisiana.

[Special Cor. Manufacturers Record.]

New Orleans, October 21.

An expected impetus to good-roads building in Louisiana and other States of the South was given Saturday when a special train carried about 120 people out to Jeanerette, 110 miles west, to inspect a 10-mile stretch of new road nearing completion in accordance with the patented process of the Petrolithic Good Road Development Co. The party was in charge of ex-Governor J. Y. Saunders, president of the company, and included city officials, engineers, bankers, members of police juries and others from New Orleans and a number of Southern parishes, and also city officials from Memphis, who studied the situation with reference to the applicability of the road to Memphis conditions. Although the road is only partially finished, and that nearest completion is yet in a "green," comparatively soft condition, the use of the road never has been interrupted, and those who have seen the gradual transformation of a semi-quagmire into a stretch of fine gravel-surfaced automobile road gave testimony to the remarkable change that had occurred. It was explained by Governor Saunders that there had never been a period of over four days without rain since the work was begun in June, whereas 10 days of clear, sunshiny weather was needed to "season" the road, when it would be finished with a coating of sand, rolled in with a 10-ton steam roller. Then the road would grow firmer and harder for several years, while still retaining the resiliency that is one of its chief recommendations. It was also pointed out that so thoroughly is the work done by the company's process that only insignificant repairs are required to keep it in perfect condition. The company guarantees its upkeep for a period of five years.

At one end of the road an opportunity was afforded the visitors to see the process of construction in its various stages. As thorough drainage is a fundamental in all good-road construction, and especially requisite in a level country with a heavy annual rainfall, a drainage ditch was cut to a depth of 2½ to 3 feet and two feet wide at the bottom on each side of the road, with a lateral drainage ditch every 500 feet cut to Bayou Teche, an average distance of 200 feet throughout the length of the road. Cross culverts of 15-inch vitrified clay pipe, with end protection of concrete head walls, serve the lateral ditches. A summit is provided for the road ditches, half way between each lateral, so there is drainage in both directions from the center of each 500-foot section of roadway. Altogether there are 28 miles of ditches in the job, which required the digging of 30,000 to 40,000 cubic yards of dirt.

The Petrolithic process is a California development, which has been in extensive use on the Pacific Coast for a number of

years. Having noted its excellence and comparative cheapness when out there some five years ago, I brought it to the attention of a number of Southern road builders on my return. It is only recently, however, that any effective steps have been taken to introduce this road into the South, and outside of the Jeanerette-New Iberia stretch of 10 miles the only other petrolithic roads in the South are 30,000 cubic yards at Chandler, Okla., and 200,000 at El Paso.

The distinguishing characteristic of the Petrolithic process is that the road is built from the bottom up, instead of rolled and tamped from the top down. With the California method the country dirt is first thoroughly loosened with specially-designed plows and machines, and it is then tamped with a "sheepfoot" tamper or roller, which represents the widest departure in this process from ordinary road-making methods. On two cylinders or rollers, approximately 4 feet in diameter and 6 feet in total length, there are set 166 bars a foot long and 2 inches thick, with slightly turned ends, somewhat resembling sheep's feet. It is said the idea of the machine really grew out of the inventor's observations of the tight tamping given a road by the frequent tramping over it of a flock of sheep. The sheep-foot roller is driven over and over the road till after a time the loose earth becomes compacted to such a firmness that the feet ride over the surface of the ground without sinking down at all. Then a crown of gravel is laid in the center, in the present instance consisting of 4 inches in the center of the 24-foot roadway, tapering to 2 inches and less on the edges. It is the opinion of Howard Eggleston, the company engineer, that no more than 2 inches of gravel would be absolutely necessary at the crown. A uniform density has been secured for the dirt foundation, and only a shallow wearing surface is required, as he maintains, and with gravel costing \$2 a cubic yard on the road, or \$400 a mile per inch of gravel, there would be a saving, without deterioration, from his viewpoint, of \$800 a mile if 2 inches instead of 4 inches of gravel were used. The gravel surface is given a coating of California asphalt, heated by steaming—not cooked—only so it will run, the asphalt acting effectively as a binder and preventing the metal surface from being torn to pieces by vehicles. This layer is also firmly tamped with the sheepfoot roller. On top of this comes the finishing coat of sand and the smoothing up that a heavy roller gives, and then the road is ready for a long term of hard service. The Jeanerette road is in the heart of the Teche sugar district, and will have a heavy traffic over it this winter. Governor Saunders assured the visitors they would find the road in much better condition in the spring that it is now. The significance of this statement appealed to those who have experienced the discomforts of Louisiana dirt roads after a rainy season, especially in sections where cane wagons and other vehicles have given them much service.

The present road is being built at a contract price of \$52,000, or an average of \$5200 a mile. This includes drainage ditches, and everything complete. Varying according to local conditions, it is stated that the ordinary cost of a petrolithic road will run from \$2500 to \$3000 a mile, and that such a road will be equal to the best macadam roads, costing \$8000 to \$10,000 a mile. This road is being paid for partly by the Police Jury of St. Mary's parish and partly from the proceeds of the road tax of ¼ mill provided for by recently-adopted Constitutional amendment, and which will ultimately fur-

nish a very considerable fund for good road construction. This work, as all other good road construction in the State, is under the supervision of the State Board of Engineers.

The Petrolithic Good Road Development Co. will not undertake good road building, the Jeanerette road being put in simply for demonstration purposes. Being a development company, and owning the patents for all the Southern States, the program is to organize subsidiary companies in all the States of the South. The Louisiana Petrolithic Construction Co. has just been organized under this plan to do business in Louisiana. The capital stock is \$100,000. Officers: W. P. Langworthy, president; J. Y. Saunders, vice-president; Julius F. Funk, secretary and treasurer. A Tennessee company is being organized to have headquarters at Memphis. Texas and Florida will be taken up next, and as soon as practicable it is the intention to cover all the Southern States with local construction companies. The parent development company will assist the local companies to arouse public interest and secure contracts, and will supervise construction in the interests of a uniform standard of excellence. It is the expectation that the campaign will result in a very material extension of the good roads of the South.

ALBERT PHENIS.

#### For American Highways.

For the sake of convenience the title of the American Association for Highway Improvement, which is launching upon its third successful year, has been changed to the American Highway Association. Logan Waller Page, director of the United States office of public roads, is president of the association, while W. W. Finley, president of the Southern Railway Co., is vice-president, in place of W. C. Brown, president of the New York Central lines. J. E. Pennybacker, Jr., is secretary, and Charles P. Light is organizer and field secretary. Lee McClung, Treasurer of the United States, continues as treasurer of the American Highway Association.

Newly elected directors of the association are James H. MacDonald, State highway commissioner of Connecticut; George W. Cooley, State highway engineer of Minnesota; A. G. Batchelder, chairman executive committee of the American Automobile Association; C. A. Kenyon, president of the Indiana Good Roads Association, and Dr. Joseph Hyde Pratt, State Geologist of North Carolina.

The greatest satisfaction is expressed by the directors of the American Highway Association not only over the great growth of the association itself, now having more than forty State and interstate road associations affiliated with it, but over the fact that the American Road Congress, which consolidated the conventions of the American Highway Association, the American Automobile Association and the National Association of Road Material and Machinery Manufacturers, was by far the greatest road convention ever held.

Fifty States and countries were represented at the congress, while 24 highway commissioners participated in the deliberations. The Government of France was represented by M. de Pulligny, chief engineer of bridges and highways; Canada by Minister Caron of the Department of Agriculture and Roads of Quebec; the Corps of Engineers of the United States Army by Col. Spencer Cosby. The exhibit at the congress was by far the largest ever made at any road convention in the world, even surpassing the exhibit at the International Congress held in Brussels in 1910.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### NEW ROAD TO PENSACOLA.

Opening of Gulf, Florida & Alabama Railway to Be Celebrated October 30.

The opening of the Gulf, Florida & Alabama Railroad for a distance of approximately 90 miles is to be celebrated at Pensacola, Fla., on October 30 under the auspices of the Commercial Association of that city.

Information concerning the proposed celebration is received to the effect that the Governors of both Florida and Alabama have been invited to attend, also representative citizens, including the Mayors and other officers of cities along the line. The exercises will include speechmaking, an excursion by steamer to look over the terminal properties of the road and to view the harbor, the driving of the golden spike completing the line by the Mayors, and a trip over the road. The Commercial Association, which has the arrangements in charge, has sent out several hundred invitations, the recipients of which will be its guests for the day.

The railroad extends now from Pensacola via Cantonment, Fla., to Local, Ala., and construction will be continued north of the latter place. The work on the first pier at Pensacola will be completed November 15, but the railroad service will begin immediately. The company now has on hand 5 locomotives, 8 passenger cars and 150 freight cars. A large force of men has been engaged in building the line from Cantonment into the city, and they will now be sent north to start construction from the present northern end of the line. This new construction will demand the erection of a 600-foot steel bridge across the Alabama River. It will have a draw, for the river at the point of crossing is navigable. It is expected that connection will be made with the Southern Railway on the other side of the river by the middle of next year, and this will afford through connection by rail to Birmingham and adjacent territory.

It is the plan of the owners of the railroad to continue its construction as far northward as Jasper, Ala., 300 miles from Pensacola, via Pine Hill, Uniontown, Greensboro and Tuscaloosa. There will also be a 300-foot steel bridge required over the Black Warrior River, and a tunnel of 1000 feet through soft earth will be needed north of Greensboro, Ala. The Eastern Construction Co. is the contractor.

When the road is completed there will be various junctions, with connecting lines thus: At Cantonment and Atmore with the Louisville & Nashville Railroad; at Pine Hill, Uniontown and Greensboro with the Southern Railway; at Tuscaloosa with the Alabama Great Southern and the Mobile & Ohio, and at Jasper, Ala., with the Illinois Central and the St. Louis & San Francisco railroads.

Roy C. Megargel, 35 Pine street, New York, is president of the railroad company; W. H. Knowles and George A. Berry of Pensacola are vice-presidents, the latter being also chief engineer and general manager; F. B. Erwin is treasurer, and C. W. Bryan, secretary. Percy Brine and Henry Tyer are, respectively, assistant treasurer and assistant secretary.

### Clinchfield Will Not Build.

President Mark W. Potter of the Carolina, Clinchfield & Ohio Railroad says that the recent reports to the effect that the company contemplates the construc-

tion of an independent line to reach the mines of the Consolidation Coal Co. at and near Jenkins, Ky., are without foundation. The company is now building to Elkhorn, Ky., and will connect there with the Chesapeake & Ohio Railway. This will afford a southern outlet for the output of the mines, which are situated on a branch railroad that connects with the C. & O. at Shelby, Ky.

### NEW GAS-ELECTRIC CAR.

Pittsburgh & Lake Erie Will Operate Novel Motor With Trailer Coach.

The Pittsburgh & Lake Erie Railroad Co. of the New York Central system, whose line connects at Connellsville with the Western Maryland Railway, has awarded a contract to the General Electric Co., Schenectady, N. Y., for a gas-electric car and trailer to form a single train, which will be tried out this month on a regular accommodation schedule. The purpose is to supplement the steam train service in a more efficient and economical manner, with frequent and convenient stops and a clean and pleasant means of travel. From Glassport through Pittsburgh to College, 49 miles, will be covered in 2 hours and 30 minutes, making 45 stops en route.

The gas-electric car (an illustration of which is presented here) is designed essentially for operation with a trailer, and while the motor car itself is smaller than

Brownwood, Tex., a freight yard and terminal that will cost complete about \$520,000; also that the engineers have been directed to invite bids for the work. The principal items of the construction are: Division freight yard, \$251,000; engine, coach and repair yards, including equipment, \$170,000; brick engine-house (12 stalls), \$45,000; 85-foot turntable, \$11,000; brick machine shop, \$10,000; car repair shed, with service track, \$8,500; brick power-house, \$8,000; sand house, with service track, \$5,500; roundhouse foreman's office and supply house, \$2,500; engine supply house, \$1,300.

There are to be no grade crossings in the yards. More than \$100,000 will be spent for concrete subways to take care of street traffic under the railroad tracks. The yard will have six tracks each of 50 cars capacity, with the additional necessary tracks.

The chief engineer of the road under whose plans and supervision the construction will probably be done is F. Merritt of Galveston.

### TO COMPLETE THE "ORIENT."

\$15,000,000 of English Capital Expected to Fulfill Plan of A. E. Stilwell.

The Kansas City, Mexico & Orient Railway, according to a report from Kansas City quoting E. Quincy Smith, president of the United States & Mexican Trust Co. of that place, will be backed within



GAS-ELECTRIC CAR FOR PITTSBURGH & LAKE ERIE RAILROAD.

the standard sizes heretofore developed, the seating capacity of the combination is greater and equals the best ruling practice of interurban roads. The car body is of all-steel construction, except the interior finish, has the same motive power equipment, and in point of construction conforms in other respects to the large types of 70-foot cars built by the General Electric Co. It is 42½ feet long, 10 feet 5 inches wide, weighs 36 tons, and has a seating capacity for 42 people. The car is partitioned into three compartments—one 20 feet 5 inches long for passengers, which has seats finished in genuine Spanish leather and is designed for a smoking compartment; a small section for baggage 6 feet long, as the traffic requirements in this case do not call for the transportation of bulky express matter, and a cab 12 feet long, containing the power-plant apparatus. Entrance is at the rear platform.

The trailer is 45 feet long, weighs 22 tons and seats 80 people. The seats are cushioned with friezeette plush. The interior trim is of mahogany, highly finished, and the car deck is ceiled with composite board. The trailer has front and rear platform entrances.

### YARD AND TERMINAL PLAN.

Gulf, Colorado & Santa Fe Railway to Spend Over \$500,000 at Brownwood, Tex.

J. H. Keefe, assistant general manager of the Gulf, Colorado & Santa Fe Railway, Galveston, is quoted saying that the company has decided to construct at

the next month or two by \$15,000,000 of English capital, the road will be taken out of the hands of receivers and completed from Kansas City to Chihuahua, Mexico, inside of a year. This means that the line, the northern end of which is now at Wichita, Kans., will be extended about 200 miles to Kansas City and enter the new union station. Mr. Smith is further reported saying that the trust company will build a dam near Alpine, Tex., to irrigate 40,000 acres of land, and it will establish immigration head offices and undertake to people the tract with settlers. Among those mentioned as interested are Cecil Braithwaite, of Foster & Braithwaite, brokers; Geoffrey Braithwaite, Frederick Hurdle and Philip D. Tuckett, all of London, England. This party, with Mr. Smith, are making an inspection of the road.

It is further stated that Mr. Smith entered the United States & Mexican Trust Co. last May as first vice-president, and that he has succeeded Arthur E. Stilwell as president. Mr. Stilwell projected the railroad and built it until the receivers were appointed, since which time all construction matters have been under the control of the courts. It is said that the trust company, which was the financial agent of the railway, owns large tracts of land along the road, of which 950 miles are completed between Kansas City and Chihuahua. The line from Chihuahua to Topolobampo, on the Pacific coast of Mexico, is not to be completed for several years. All effort and capital will be devoted to finishing the line east from that



city and to the completion of the Kansas City Outer Belt Line.

### LUMBER ROAD TO EXTEND.

**A Well-Built Line Which Is Expected to Become a Common Carrier.**

[Special Cor. Manufacturers Record.]

Raleigh, N. C., October 22.

It is learned that the Montgomery Lumber Co., owning and operating a railroad of standard gauge and construction from Spring Hope to Bunn, N. C., has made all arrangements to begin work on its extension toward Raleigh, and has laid out the route for a distance of 10 miles. Materials are on hand. Spring Hope is the terminus of a branch of the Atlantic Coast Line, and it is supposed that the latter is interested in the construction.

The Montgomery Lumber Co. has quite recently bought a large tract of timber (principally long-leaf pine) from the Greenleaf-Johnson Company, and lying between Bunn and Rolesville, the latter place being about 20 miles from Raleigh and 10 miles from Bunn. Bunn has for three years been the terminus of the Montgomery Lumber Co.'s road, of which company Herbert E. Buell is the general manager, with headquarters at Spring Hope. Near Bunn the line crosses Tar River on an excellent bridge, the construction of which is of such a character as to show that the road is to be a passenger and freight line. This side of Bunn, on the part of the line which is now to be built, there will be a trestle 3200 feet long. A survey to Raleigh was completed two years ago, and if it should be followed the road will cross Neuse River, about six miles east of the city, and enter Raleigh on the south.

Since the railroad was built to Bunn that place has developed, and a high school costing \$6000 is under construction there, while some brick stores and a number of dwellings have been erected.

FRED A. OLDS.

### New Equipment, Rails, Etc.

Texas & Pacific Railway is reported about to buy 500 box cars of 30 tons capacity.

Missouri, Kansas & Texas Railway has ordered 40 Mikado type locomotives from the American Locomotive Company, New York.

Louisville & Nashville Railroad, according to a report from Birmingham, has placed an order with the Ensley Mills of the Tennessee Coal, Iron & Railroad Co. for 70,000 tons of steel rails for next year's delivery.

Interstate Railroad is reported contemplating the purchase of 300 freight cars.

Kansas City Southern has closed contracts with the American Car & Foundry Co., St. Louis, for 1000 gondola cars; with the Bettendorf Axle Co., Davenport, Iowa, for 200 flat cars, and with the Mount Vernon (Ill.) Car & Manufacturing Co. for 100 automobile cars.

Louisville, Henderson & St. Louis Railway has ordered three 10-wheel locomotives from the Baldwin Locomotive Works, Philadelphia.

Chicago, Burlington & Quincy Railroad, says a market report, has ordered 500 tons of bridge steel from the American Bridge Co., New York.

Norfolk & Western is expected to purchase about 5000 freight cars.

Illinois Central Railroad is reported to have ordered 50,000 tons of standard section rails for next year's delivery from the Illinois Steel Co., Chicago.

San Antonio & Uvalde Railway has ordered 9000 tons of rails from the Maryland Steel Co., Sparrows Point, Md.

President J. A. Edson of the Kansas City Southern is quoted saying it has just bought 15 locomotives, this following the order for 1300 new freight cars.

Missouri, Kansas & Texas Railway, says a market report, has placed an order for 2000 box cars.

Chicago, Burlington & Quincy, according to a late report, has ordered 500 flat cars from the Haskell & Barker Car Co., Michigan City, Ind.

Southern Engineering Co. is reported to have placed an order for 12,000 tons of Mayari Bessemer steel rails with the Maryland Steel Co.

Washington Southern Lines are reported to have ordered five Pacific type locomotives from the Baldwin Works.

Pennsylvania Railroad, says a market report, has completed specifications for 200,000 tons of standard section steel rails for new construction, this being in addition to the contracts recently reported for 125,000 tons for maintenance.

Mobile & Ohio Railroad has ordered a Mikado type locomotive from Baldwin's.

### Railroad Notes.

The Santa Fe system, according to a report from Galveston, Tex., has begun freight service over its new short route west through Texas via Coleman and Texico.

The Railways Securities & Construction Co. has been chartered in Delaware with \$50,000 capital; incorporators, F. Armstrong, W. Mayne and R. J. Kirkwood, St. Louis, Mo.

The Baltimore & Ohio Railroad Co. is reported to have purchased about 17 acres of land near Halethorpe, in the suburbs of Baltimore, and while the object of the purchase is not stated, it is expected that the company will use the land for improving the track alignment.

Thomas S. Wheelwright has been elected president of the Virginia Railway & Power Co., Richmond, Va., to fill the vacancy caused by the death of William Northrop. He is vice-president and general manager of the Old Dominion Iron and Nail Works in that city.

It is announced that the Western Maryland Railway will begin the operation of through trains between Baltimore and Pittsburgh in connection with the Pittsburgh & Lake Erie Railway via Connellsville, on October 27. The Connellsville extension has been in use for freight service for some time.

At the annual meeting of stockholders of the Central of Georgia Railway the company was authorized to issue from time to time \$80,000,000 of bonds, as recommended some time ago by the board of directors, the proceeds to be used as may be needed hereafter for improvements and extensions as well as other purposes.

### For a Metal Products Plant.

Mr. George A. Simpson, representing the Canton Culvert Co. of Canton, O., is making a tour of investigation of the Mississippi Valley States and Texas looking toward the location of a metal products manufacturing plant, the company writes to the MANUFACTURERS RECORD:

"The proposed factory will employ a large number of workmen, and will manufacture a product that is greatly in demand throughout the entire territory. The company will be associated with important Northern interests at present engaged in manufacturing this special line. Mr. Simpson, whose headquarters are with this company, has organized three companies in the South, all of which are operating successfully at the present time. The interests which he represents now wish to locate two more plants in the territory above mentioned."

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

### Texas Cotton Mill Co.

Referring to its previously announced plan for enlarging plant, the Texas Cotton Mill Co. of McKinney writes to the MANUFACTURERS RECORD as follows:

"Contract for the building has been let to Jones & Cooper of this place; work is progressing very satisfactorily, and we expect to have the buildings complete by January 1; also an extension to the weave shed 113 feet long, 106 feet 8 inches wide, consisting of one story and basement, and is being constructed of concrete, wood and glass; also an extension to the two-story part of the mill 61 feet 8 inches long, 101 feet 4 inches wide, this to be constructed of concrete and brick. These additions are following out the original plans of the mill. The original mill had plank ends and was so arranged that it could be enlarged at a minimum expense. We are adding 5000 spindles and 160 looms, and all other necessary machinery. All of the textile machinery will be furnished by Lowell Machine Shop, Lowell, Mass., who are acting as our engineers for the building. Low-pressure side to the engine will be added. This has not been contracted for yet. The mill makes denims, chambrays, ticking, etc. We hope to have all the new machinery in operation early in 1913."

### The Cotton Movement.

In his report for October 18 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 48 days of the present season was 3,035,191 bales, a decrease under the same period last year of 125,148 bales. The exports were 1,475,579 bales, a decrease of 216,832 bales. The takings were, by Northern spinners, 206,467 bales, a decrease of 74,989 bales; by Southern spinners, 370,539 bales, an increase of 40,600 bales.

### Wants Cotton Cloth.

The Ritter Manufacturing Co., W. W. Ritter, president, Norfolk, Va., wants prices on all widths of cotton flannel, on husking cloth 33 inches wide, and on Jersey cloth of same width, for manufacturing gloves and mittens.

### Textile Notes.

It is reported that the Hartwell (Ga.) Mills will double its capacity and has awarded contract for the new machinery. This company's present equipment includes 8000 spindles and 200 broad looms for manufacturing sheeting.

The Rocky Mount (N. C.) Mills will install an auxiliary power plant, and has awarded contract to B. Parks Rucker of Charlotte. The equipment will include four 250-horse-power water-tube boilers, a 500-kilowatt turbine, condensers, electric motors, etc., all of which have been ordered.

The Trion Company, Trion, Ga., has engaged J. E. Sirrine, Greenville, S. C., as architect-engineer in charge of its recently announced improvements. It recently wired the MANUFACTURERS RECORD of intention to invest \$100,000 for

village improvements and \$300,000 for new machinery, etc.

Cherokee Hosiery Mills Co., Rome, Ga., reported last week as to be organized, has been chartered with \$60,000 capital stock by John M. Berry, J. H. O'Neill, J. B. Sullivan and associates. This company will continue the Cherokee Hosiery Mills, and plans an increase of daily capacity from 600 to 1000 dozen pairs.

## MINING

### Transmitting Electricity for Mining.

Referring to a report that the Alabama Fuel & Iron Co., Birmingham, will build a central electrical plant, Charles F. De Bardeleben, vice-president and general manager of that corporation, writes to the MANUFACTURERS RECORD as follows:

"We have a central washing plant at Colgate, 6½ miles from our Margaret mines and 2½ miles from our Acmar mines. At that plant we have a 1000-kilowatt turbine-driven generator, furnishing power and operating the washing plant and the Acmar mines. We are increasing this plant and extending the transmission line to Margaret so as to furnish power to three Margaret mines as well as to the Acmar mines and the Colgate washer plant. The total expenditure at this time, including the development of the additional slope at Margaret, will be in the neighborhood of \$100,000, all of which I hope to have completed by the first of January. We have a production now of 1500 tons per day from our Acmar mine and 2000 tons per day from Margaret. The additional slope will give us an additional 1000 tons, making a total of 4500 tons per day from the two operations, 80 per cent. of which will pass through the central washing plant at Colgate."

### To Develop 2500 Acres.

The McDonough Ore & Mining Co., Birmingham, has been incorporated with \$5000 capital and the following officers: President, R. M. McDonough; vice-president, W. A. Porter; secretary-treasurer, J. H. McDonough. This company has purchased and will develop 2500 acres of iron-ore land in Shades Valley, below Oxmoor, near the main line of the Louisville & Nashville Railway. The property was owned by W. F. Aldrick and associates, but had recently been under option to J. J. Shanno and associates, who negotiated the sale.

### A 700-Acre Coal Development.

The Warrior Coal Co., Thos. A. Lewis of Bessemer, Ala., president, has purchased for development the Bankhead Coal Co. properties, including 700 acres of land and mining equipment at Carbon Hill, with a daily capacity of 500 tons of coal. Reports state that \$100,000 was the price paid, and that the new owner intends in future to increase the daily tonnage.

### New Chickasaw Cooperaage.

The Chickasaw Cooperaage Co., Memphis, expects its new plant at Binghamton, near Memphis, to be completed by December 1. Its buildings are of fireproof construction, costing about \$45,000, and include 220x100-foot main factory, 220x50-foot and 220x75-foot storage sheds, all ironclad, and four drykilns 120x17 feet of hollow tile and concrete. Electricity generated at the plant will furnish the power. This plant will have an annual output of about 20,000,000 staves and 1,000,000 sets of heading, about 400,000 barrels.

Since 1901 permits for new buildings aggregating \$17,000,000 have been issued at San Antonio, Tex.

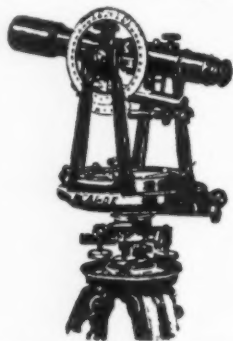
## MECHANICAL

### The Aloe Engineer's Transit.

The accompanying illustration shows the engineer's transit manufactured by the A. S. Aloe Company, 505 Olive street, St. Louis, Mo.

This transit has been designed and is constructed for durability and hard treatment to which such transits are likely to be subjected in field work. It is described as being absolutely accurate and as meeting the requirements of any engineering work to which a transit can be applied.

It has an achromatic telescope nine inches long, with erecting eye piece. The aperture of the object glass is one and one-eighth inches, with magnifying power of 28 diameters, giving a large, clear, flat field. It is fitted with dust guards, sun



ALOE ENGINEER'S TRANSIT.

shade and dust cap. A spiral motion arrangement is supplied to the eye piece for focusing the cross hairs. It has a sensitive ground spirit level four inches long, mounted under the telescope clamp, and an opposing spring tangent screw to the axis of the telescope. The vertical circle is four and one-half inches in diameter, with vernier readings to minutes, and the circle is marked in quadrants from zero to 90 degrees each way. The horizontal limb is six and one-half inches in diameter, graduated to half degrees, and has two rows of figures reading in opposite directions from zero to 360 degrees. The double vernier reads to minutes, and is placed at 30 degrees to the line of sight. This vernier is fitted with a reflector, and is covered with crystal glass.

Two sensitive ground spirit levels are placed at right angles on the horizontal circle. A sensitive compass needle five inches long is provided, together with variation, and movement for setting off the magnetic variations with rack and pinion. There are four leveling screws and shifting center adjustments.

The weight of the instrument without tripod is 11 pounds. It is furnished complete in a mahogany-finished case, together with plumb bob, pocket magnifier, sun shade, screwdriver and adjusting pins.

The surveying set supplied with this transit consists of the Philadelphia level rod, 7 feet long, sliding out to 13 feet; one sight pole 8 feet long, octagonal and tapered; one 100-foot steel tape on a brass reel, and one set of steel marking pins containing 11 pins 14 inches long.

Full information regarding an especially attractive offer being made will be sent on request to the company.

### Alabama's Taxable Property.

State Auditor C. Brooks Smith reports that the assessed value of real and personal property in Alabama, with the exception of De Kalb county, which has failed to report, is \$561,521,193, indicating an increase over last year of \$24,000,000. Jefferson county leads with \$121,398,097, Mobile being second with \$42,710,842 and Montgomery third with \$32,615,940.

## News and Views About The South: The Nation's Greatest Asset.

[On this page we shall for a few weeks give some comments about The South: The Nation's Greatest Asset, based on letters from our subscribers.]

### A Sample of Many Letters.

Here is a sample letter of the kind we are getting from all over the South. Have you written one like it, or rather like that part which says "please enter my order?" We want some thousands of letters of that kind ordering extra copies of "The South: The Nation's Greatest Asset." Writing from Bluefield, W. Va., Mr. J. Elliott Hall, general manager of the Appalachian Development Co., says:

"In regard to proposed special edition of the MANUFACTURERS RECORD, 'The South: The Nation's Greatest Asset,' you will please enter our order for 10 copies of same in the paper binding and one copy in leather binding. I consider 'Thirty Years of Southern Upbuilding,' a remarkable achievement and of material value to all interested in the development of the South or Southern investments. I do not see how you could surpass your former achievement; however, if the proposed issue equals 'Thirty Years of Southern Upbuilding,' I shall be well satisfied with my bargain. Please furnish us with advertising rates for space in 'The South: The Nation's Greatest Asset,' as we shall, of course, want our advertisement in this edition. Trusting this will be satisfactory, and wishing you the success you so richly deserve for the helpful work you are doing for the great South, I am, etc."

### Anxious to See His Section Represented.

Mott H. Anderson of the Anderson Manufacturing Co., manufacturers of bank and store fittings, etc., says:

"We are in receipt of your announcement of the fact that you expect to issue the first of the coming year an issue of your valuable paper to surpass that of the 'Thirty Years of Southern Upbuilding of the South.' We think this is a very commendable move, and would be glad to see this immediate section of the South well represented in this issue in both advertising and in accurate figures relative to the advancement of this section and the varied opportunities it affords. To this end the writer will call the attention of your contemplated issue to some of the leading business men of our town and the Board of Trade, and see if an interest in this line can be aroused. We beg to give below the names of some of the leading business men of our town, and hope you will take the matter up with them directly: J. L. Dann, J. H. Ransom, M. R. Campbell, Sr., M. R. Campbell, Jr., B. H. Wilkins, Harry Parker, W. K. Bennett, M. F. Martin, S. S. Blackman, E. B. Blackman, W. R. Marshall, John W. Harton, Doak Aydelott, A. L. Davidson, E. I. Hitt, T. K. Williams, G. D. Hicks, T. D. Lawson and Jack Crouch. The writer will be glad to follow any suggestion you might offer toward stirring up an interest in your issue in this section."

Every live member of every live commercial organization in the South could wisely follow Mr. Anderson's example in

\*Under this title we are preparing a special publication to be called "The South: The Nation's Greatest Asset." You will need copies of it. Price in paper cover, 50c.; in cloth, \$1.50, and in leather, \$3.

pressing this matter upon the attention of fellow-members.

Do you want your town or city and your business to be represented through the advertising pages of that issue as a part of the assets of the South which combine to make the total that makes this section the nation's greatest asset? Do you want to be counted among the live, going, vigorous concerns of the South? If so, advertise in "The South: The Nation's Greatest Asset." Thousands of people in this country and abroad will judge the South by the advertising pages of that publication.

### Impressed With Title, "The South: The Nation's Greatest Asset."

A. A. Glisson, the general passenger agent of the Fort Worth & Denver City Railway Co., writing from Fort Worth, expresses his appreciation of the great good to be accomplished by "The South: The Nation's Greatest Asset," and on this says:

"In taking hold of the subject and handling same in the manner which you propose you will render both the section referred to and the nation as a whole a considerable service, and will hasten the adequate appreciation of numerous truths which seem to have been practically overlooked up to the present time. I feel that you are peculiarly fortunate in adopting the title referred to for your proposed special publication, being confident that same, in connection with the prestige which the MANUFACTURERS RECORD already possesses, will result in attracting greater and more favorable attention than might be expected of a special issue under almost any other title."

Like Mr. Glisson, many others have been impressed with the title "The South: The Nation's Greatest Asset." The very name itself has already commanded wide attention everywhere. Men are beginning, in the language of the day, "to sit up and take notice" and wonder if it is indeed true that the South is the nation's greatest asset. Millions of people will be stirred to ask that question and to consider whether it can be answered affirmatively. The demonstration that the South is the nation's greatest asset will awaken widespread interest throughout Europe as well as in this country.

### Will Bring to South World's Attention.

The Stroud Cotton Oil Co. of Stroud, Okla., expressing its appreciation of our proposed publication, "The South: The Nation's Greatest Asset," writes as follows:

"You deserve praise for undertaking the work in getting out another edition showing the almost unlimited wealth and opportunities of the South. 'The South: The Nation's Greatest Asset' will undoubtedly do more than any other thing to bring this wonderful section of the country to the attention of those who will eventually become its citizens. We will want four copies in paper and one in leather. Maybe more to follow."

This is in line with letters coming from all parts of the South and from all classes of business, financial, manufacturing, agricultural and professional. Everybody who is interested in the South, regardless of his business, seems to be interested in "The South: The Nation's Greatest Asset."

### Are You Interested in South's Progress.

Mr. J. A. Herndon, general manager of the North State Life Insurance Co., Kingston, N. C., on this subject writes:

"We shall be very glad to do anything that we can to assist in the success of your special issue, 'The South: The Nation's Greatest Asset.' For the present, you may enter our order for 10 copies in paper and one copy in leather."

Are you interested in the South, in knowing the fullness of its resources and the possibilities of its development? Are you interested in what it has done, what it is doing, and what it can do? Are you interested in having the people about you, in your office, in your factory, in your family, acquainted with their own country? If so, you are necessarily interested in having extra copies of "The South: The Nation's Greatest Asset." Have you sent in your order yet?

### For an Expression of the South on Its Architecture.

Lyndon P. Smith of a firm of architects in New York and Atlanta, writes:

"The South as a national asset, so far as my observation goes, will be great, providing that its development is not on the lines of the knock-down and drag-out method. Just now it is a case of large hands and feet, like a college boy, just realizing its strength. There is much courtesy, a relic of ante-bellum days and good-heartedness, with a tendency to saner thinking. The South has been the scene of much that should give life its best. There are many fine traditions. It is physically prolific, and stored with the rich treasures of earth, but these are of little avail unless the speech of Americanism prevails. I should like to see the South grow in wealth and position, developing an architecture not based on fake and foible, but indigenous, truthful and natural esthetically and constructively. The time is ripe for such indication of the character of the people."

### Among Moneyed Men Home and Abroad.

President Winchell of the St. Louis & San Francisco Railroad, in ordering a large number of copies of "The South: The Nation's Greatest Asset," writes:

"These will be widely distributed in this country and abroad among a class of people whom the South is most in need of, namely, men of means who are looking for profitable investment of their capital."

President Winchell appreciates the importance of bringing directly to the attention of the moneyed people of this country and abroad the great resources of the South—resources which make this section the most important asset of the country. Every business institution in the South, and every man interested in that section, wherever he may live, should follow the good example of President Winchell and others who are ordering extra copies of "The South: The Nation's Greatest Asset."

### Completing a \$230,000 Plant.

The Riverside Fertilizer Co., Macon, Ga., expects to complete its plant by December 15, and will then have invested \$230,000 for land, buildings and machinery. It will employ 150 men, and have an annual capacity of 30,000 tons of acid phosphate and 50,000 tons of fertilizer. The mill building is 486x150 feet, and the chemical building is 500x40 feet. The Pratt Engineering & Machine Co., Atlanta, has contract to complete the plant and install machinery.

Secretary H. C. Whitfield of the Chamber of Commerce of Marfa, Tex., writes that inducements are offered for a modern hotel in his city.



# Construction Department

## TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

### BRIDGES, CULVERTS, VIADUCTS

Ala., Gadsden.—Gadsden, Bellevue & Look-out Mountain Railway and Bellevue Highlands Co. awarded contract to Gadsden Concrete Co. to build concrete culverts and drains.

Ala., Jasper.—Gulf, Florida and Alabama Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, will construct two steel bridges; 800-foot bridge with draw span across Alabama River, and 300-foot bridge over Black Warrior River; also construct dirt tunnel 1000 feet north of Greensboro, Ala. (See "Machinery Wanted.")

Ala., Livingston.—Sumter county will expend \$12,500 to erect eight bridges; to include four steel spans 50 to 80 feet and four reinforced concrete; W. S. Keller, State Engineer, Montgomery, Ala.; contract recently noted awarded to Blodgett Construction Co., Kansas City, Mo.

Ga., Augusta.—City and Archibald Butt Memorial Association are completing arrangements to construct memorial bridge across first level of Augusta Canal at 15th St.; width 60 feet; six-foot walk on either side; ornaments will consist of four limestone columns on each of corners of center span and four bronze lions on four corners of approaches; bids received until October 31; plans on file with City Engineer; cost \$30,000, exclusive of ornaments, which will be furnished by Archibald Butt Memorial Association. (Previously mentioned.)

Ga., Augusta.—City will construct reinforced concrete bridge across main level of

Augusta Canal on 15th St.; street committee receives bids until October 31; Nisbet Wingfield, City Engineer. (See "Machinery Wanted.")

Ga., Gainesville.—Hall and Dawson counties will construct steel bridge over Chestate River at Garrett Robertson's Ford. Address Hall County Commissioners at Gainesville.

Ky., Pineville.—Bell county will construct bridge across Clear Creek; B. A. Fuson, County Judge, receives bids until November 6. (See "Machinery Wanted.")

Miss., Macon.—Noxubee county will construct bridge across Dancing Rabbit Creek, on Macon & Memphis road, and bridge across Wet Water Creek, on Starkville road, and repair river bridge at Macon; County Supervisors, John A. Tyson, clerk, receives bids until November 5. (See "Machinery, etc., Wanted.")

Miss., Vicksburg.—Warren county will construct concrete arch over Glass Bayou; Chancery Clerk receives bids until November 6; J. D. Laughlin and A. M. Paxton, clerks. (See "Machinery Wanted.")

N. C., Charlotte.—Mecklenburg County Commissioners contemplate building bridge over Paw Creek at intersection with Dowd Rd.; reinforced concrete; 298 feet long, with six girder spans; estimated cost, \$8000.

N. C., Charlotte.—City, Southern Railway (B. Herman, chief engineer, Washington, D. C.), and Charlotte Electric Railway agreed to construct viaduct at Morehead St.; reinforced concrete; 70-foot span; cost about \$12,000; city executive committee receives bids until October 30; Joseph Firth, City Engineer. (See "Machinery Wanted.")

Tex., Fort Worth.—City will construct reinforced concrete viaduct on Allen Ave.; Mayor and Commissioners receive bids until October 22; F. J. Von Zuben, acting City Engineer. (See "Machinery Wanted.")

N. C., Asheville.—Bricks.—Red Shale Brick Co., capital stock \$25,000, incorporated by J. W. Rutherford, Arthur Penland, W. A. Reynolds and others.

Tex., Bay City.—Brick and Tile.—Bay City Brick & Tile Co., capital stock \$7500, incorporated by B. E. Norvell, J. E. Kinnessell and J. W. Gaines.

W. Va., Newell.—Pottery.—Homer Laughlin China Co., East Liverpool, O., wires Manufacturers Record: "Proposed additional plant is 15-kiln pottery for making china-ware; 200x200 brick building; one and two stories; cost about \$200,000; machinery alone about \$50,000; will employ about 400 men."

W. Va., Newell.—Pottery.—Edwin M. Knowles China Co., East Liverpool, Ohio, and Chester, W. Va., wires Manufacturers Record: "Erecting pottery at Newell; 15 ware kilns and 12 decorating kilns; main building 700x225 feet; cost \$250,000; capital stock increased to \$500,000." Writes Manufacturers Record further, as follows: "Buildings approximately 25x700 feet, containing clay shops, kilns and decorating departments; construction of fire brick walls, concrete floors and felt roof; every modern convenience in sanitation, ventilation, heating and lighting will be installed; entire plant sprinkled with dry sprinkler system; electric motive power; two-phase alternating generator, directly connected, will be installed."

### COAL MINES AND COKE OVENS

Ala., Carbon Hill.—Warrior Coal Co., Thos. A. Lewis, president, Bessemer, Ala., purchased 440 acres land and entire equipment of Bankhead Coal Co. at Carbon Hill for about \$100,000; daily capacity 350 tons to 500 tons, March 1, 1913; no machinery needed.

Ala., West Blocton.—Cahaba Central Coal Co. (I. B. Kreutzman and associates) will

develop 300 acres of coal property recently noted.

### CONCRETE AND CEMENT PLANTS

Ala., Perdido Station.—Cement Blocks.—Perdido Grocery Co. will establish plant to manufacture cement blocks.

### COTTON COMPRESSES AND GINS

N. C., Craven.—Craven Milling Co., Dr. C. M. Van Poole, proprietor, will rebuild cotton compress and gin recently reported burned; plans not fully determined. (See "Machinery Wanted.")

Okla., Dustin.—Farmers & Merchants' Gin Co., capital stock \$7000, incorporated by B. B. Henden, John Ryan, C. L. Puckett, J. D. May and others.

Tex., Conroe.—Conroe Gin, Ice & Light Co., capital stock \$30,000, incorporated by J. Wahrberger, C. W. Nugent, Mrs. M. E. Uzzell and Charles P. McDade.

Tex., Kellar.—Union Gin Co., capital stock \$4000, incorporated by W. A. Price, J. E. Pearson and J. H. West.

### DRAINAGE AND IRRIGATION

Arkansas.—Jack Bayou Drainage District, W. F. Strangeways, chairman, Southern Trust Bldg., Little Rock, Ark., is asking bids, to be received until 10 A. M. October 30, for proposed 370 acres clearing and dredging; 11 miles ditch, 517,000 cubic yards. (See "Machinery Wanted.")

Ga., Grayson.—Haynes Creek Drainage District No. 1 will construct canal eight miles long, 22 feet at top, 16 feet at bottom, 7 feet deep; about 156,000 cubic yards of dirt, 500 cubic yards of rock; number of acres to be drained 800; cost \$15,000; contract let October 29; W. A. Cooper, chairman Drainage Commissioners; bond issue of \$15,000 recently noted contemplated. (See "Machinery Wanted.")

La., Belle Helene.—Bayou Conway Drainage District organized with Jonas Well, president; John T. Many, vice-president; R. J. Vega, secretary-treasurer; proposes to drain 50,000 acres land in Fifth and Sixth wards of Ascension parish.

Fla., Plant City.—City votes November 2 on \$5000 bond issue for drainage. Address The Mayor.

Tex., Brownsville.—Frank T. Wilford, Jr., of Houston, Tex., purchased for \$57,000 Brownsville Irrigation Co.'s property, including 32 miles of canals and about 2700 acres land.

Tex., Campbellton.—Company will be organized to irrigate 6000 acres along Atascosa River and to develop for colonization; W. L. Dunne, civil engineer, 212 Gibbs Bldg., San Antonio, Tex., is making surveys.

Tex., Lometa.—Scholten Bros. & Co. contemplate land irrigation in connection with railroad now being built from Lometa to Bend, Tex., and thence to cedar forests.

Tex., Pleasanton.—Atascosa Valley Irrigation Co., capital stock \$120,000, purchased 4000 acres in artesian belt adjacent to Atascosa River and will irrigate; drill several 12-inch artesian wells; colonization contracts covering 3000 acres have been made and 1000 acres are now being cleared for immediate cultivation; company secured 8200 acres adjoining present holdings to develop later; plans include construction of cannery; W. L. Dunne, 212 Gibbs Bldg., San Antonio, Tex., engineer in charge of developments; L. S. Bryant, O'Brien Block, Pleasanton, resident engineer.

Tex., Tilden.—W. L. Dunne, civil engineer, 212 Gibbs Bldg., San Antonio, Tex., is making surveys relative to irrigating 10,000 acres along Nueces River in McMullen and Live Oak counties for St. Louis and San Antonio parties who have option on 17,200 acres.

### ELECTRIC PLANTS

Ark., Marianna.—E. C. and J. S. Horner purchased Marianna Light & Power Co.'s plant; contemplate improvements.

Ky., Corydon.—City votes November 5 on \$10,000 bond issue to construct electric-light plant. Address The Mayor.

Ky., Danville.—Danville Light, Power & Traction Co. will, it is reported, enlarge power plant and construct transmission line to Perryville, Ky.

Ky., Perryville.—Danville Light, Power &

## PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

PUBLISHED ON PAGES 78 and 79

In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.

Rate 20 cents per line per issue.

When Proposal Advertisements cannot be sent by mail in time to secure insertion before date for opening bids, please wire advertisement copy collect by Day Letter

Proposal Advertising forms close Wednesday, 10 A. M.

Tex., Waco.—Southern Traction Co. will construct bridge across Brazos river for accommodation of cars to be operated for Waco-Dallas-Corsicana Interurban; estimated cost \$100,000; Pierson & Co. of Houston, Tex.

Va., Rustburg.—Campbell county will construct bridge 110 feet long and 16 feet wide on Lynchburg and Courthouse Rd.; concrete piers and abutments; plans and specifications on file with Light & Russell, Rustburg; R. A. Russell, Commissioner for Board of Supervisors, receives bids until November 4. (See "Machinery Wanted.")

### CANNING AND PACKING PLANTS

Fla., Fernandina.—Florida Sea Food Co. incorporated; W. J. Davis, president; Thos. C. Borden, secretary-treasurer; plant equipped and in operation.

N. C., Greensboro.—Greensboro Packing & Storage Co., capital stock \$20,000, incorporated by R. E. Hackley, G. W. Millersham, Samuel Johnson and others.

Tex., Fort Worth.—Fort Worth Packing Co. increased capital stock from \$25,000 to \$50,000.

Tex., Pleasanton.—Atascosa Valley Irrigation Co. plans to erect cannery. (See "Land Developments.")

Va., Brookneal.—Liberty Orchards Co., O. B. Burrell, president, contemplates establishment of cannery near Brookneal. (See "Land Developments" and "Machinery Wanted.")

### CLAYWORKING PLANTS

Md., Cumberland.—Brick and Tile.—Queen City Brick & Tile Co. will install machinery and increase daily capacity of plant to 50,000 bricks.

develop 300 acres of coal property recently noted.

Ky., Blanche.—E. O. Golden, trustee, Pineville, Ky., purchased property of Big Hill Coal Co. at Blanche for \$3000.

Ky., Manchester.—Manchester Coal & Coke Co., capital stock \$50,000, incorporated by Arthur E. Young, H. C. McClintock, J. Audley Pierce, David E. Mitchell and A. M. Slater, all of Pittsburgh, Pa.

Md., Cumberland.—George's Creek Coal Co., Third National Bank Bldg., W. F. Coale, general manager, acquired property of former George's Creek Coal & Iron Co.; eight mines in Maryland; owns 8000 acres in fee and 3000 acres mineral rights in Garrett and Allegany counties; has lease on 1500 acres in Logan county, West Virginia, and will develop.

Okla., Midway, P. O. at Lehigh.—Folsom-Morris Coal Mining Co. purchased additional coal lands for development.

W. Va., Bream.—Cespe-Kanawha Coal Co. purchased coal properties of C. B. Graham of Charleston, W. Va.; increase daily capacity of mines from 1000 to 2500 tons coal. (Recently reported incorporated with \$50,000 capital stock by Charles E. Specht of Johnstown, Pa., and others.)

W. Va., Logan County.—George's Creek Coal Co., Third National Bank Bldg., Cumberland, Md., W. F. Coale, general manager, is arranging to develop 1500 acres leased lands in Logan county; Kanawha coal. (See Md., Cumberland.)

W. Va., Welch.—New Pocahontas Coal Co. will further develop 1400 acres; daily capacity, 500 tons coal; has taken over plant of working company and will require no new machinery; W. E. Deegans, president, Glen Jean, W. Va.; O. C. Huffman, vice-

Traction Co., Danville, Ky., will, it is reported, construct transmission line to Perryville; Danville plant to be enlarged.

Mo., Sedalia.—Henry L. Doherty & Co. of New York purchased properties of Sedalia Ice, Light & Fuel Co.; will consolidated with Sedalia Electric Light & Traction Co.

Mo., St. Louis.—Western Power & Light Co., capital stock \$2000, incorporated by C. E. Goltzmann of St. Louis and Fred R. Mott and Leo C. Dziatzko of Webster Groves, Mo.

Tex., Anna.—G. I. Wilcox, Melissa, Tex. (recently noted to construct electric-light plant), states plant is nearly completed.

Tex., Conroe.—Conroe Gin, Ice & Light Co. incorporated by W. J. Wahrenberger and others. (See "Cotton Compresses and Gins.")

Tex., Georgetown.—City granted franchise to Citizens' Electric Light & Power Co. to construct electric transmission line six miles from Taylor to Circleville on San Gabriel River.

Tex., Hallettsville.—City contemplates installing dynamo in light plant to cost \$3500 to \$3000; estimates being secured. Address The Mayor.

Tex., Houston.—L. A. and C. L. Anderson have franchise to construct light and power system from city limits to point near Brays Bayou on Main-St. Rd.

Tex., Houston.—Houston Electric Co. reported to increase capitalization from \$3,000,000 to \$4,000,000. (Previously noted to make enlargements and improvements, and to have awarded machinery and building contracts, with erection contracts let to Stone & Webster Engineering Corporation, 147 Milk St., Boston, Mass.)

Tex., Port Arthur.—Port Arthur Light & Power Co., capital stock \$600,000, incorporated by Walter N. Monroe of Port Arthur, Edwin J. Emerson of Beaumont, Tex.; Charles W. Kellogg, Jr., of Dallas, Tex.; C. R. Wharton and C. L. Carter of Houston, Tex., and others; acquire light and power plant of Port Arthur Traction Co. Stone & Webster Management Association, Henry G. Bradlee, president, Stone & Webster Bldg., 147 Milk St., Boston, advises Manufacturers Record as follows: "Recently purchased electric-light, power and ice companies at Port Arthur; organized Port Arthur Light & Power Co. and Port Arthur Ice & Refrigerating Co.; new equipment recently installed; no present improvements contemplated."

Tex., San Antonio.—San Antonio Gas & Electric Co. will erect two-story building on Villita St., to cost \$7500, and addition to plant on Conception Rd., to cost \$2750.

W. Va., Warwood.—Town Council granted franchise to Brooke Electric Co. of West Virginia to construct electric-light system. Charles A. Dowler, Mayor.

### FERTILIZER FACTORIES

Ala., Newton.—C. W. Poyner and associates will establish fertilizer plant.

Ga., Macon.—Riverside Fertilizer Co. is progressing with construction of previously-described plant; fertilizer plant in operation probably by December 1, and acid plant early in January; mill building 48x150 feet; chemical building 50x40 feet; annual capacity 20,000 tons acid phosphate and 50,000 tons complete fertilizers; W. W. Frank, superintendent; cost of plant, machinery and site, \$230,000. Pratt Engineering & Machine Co., Atlanta, Ga., has contract to complete plant and install machinery.

Ga., Tifton.—International Agricultural Corporation, 165 Broadway, New York, and Atlanta, Ga., purchased 15 acres of land; will erect acidulating plant and manufacture products used in commercial fertilizers; main building 160x340 feet; cost \$100,000; shipping capacity for first season 1000 cars.

### FLOUR, FEED AND MEAL MILLS

Fla., Tampa.—A. F. Spaw and associates will establish plant to manufacture sweet-potato flour, dasheen flour, etc.

N. C., Salisbury.—Salisbury Milling Co. will remodel flour mill; ordinary construction; brick; contract awarded to Wolf Company, Chambersburg, Pa.; machinery purchased; daily capacity 100 barrels of flour.

Tenn., Columbia.—Columbia Grain Co., capital stock \$10,000, incorporated by W. A. Dale, R. L. McKinney, E. E. McLemore and others.

Tex., Brownsville.—Martin Besteiro will build feed mill and grain elevator to cost \$20,000.

Tex., Kerrville.—Kerrville Roller Mills awarded contract to Bruno Schott of Kerrville to rebuild roller mills.

Va., Curdsville.—C. C. Harvey will build

40 to 50-barrel flour mill and improve water-power; awarded contract for machinery.

### FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Iron Works.—Ingalls Iron Works contemplates building plant.

Ala., Boyles.—Pipe.—National Cast Iron Pipe & Foundry Co. will be organized by A. H. Ford (to be president), Felix I. Tarrant and others, all of Birmingham, Ala., to build plant (reported to cost \$250,000) for manufacturing pipe for water, gas, etc.; has several acres for site.

Ark., Harrisburg.—Machine Shop.—W. L. Brown will erect brick building for machine shop.

Fla., Orlando.—Woodworking Machinery.—Phillips Manufacturing Co., Francis V. Phillips, president, will install small foundry; erect 70x140-foot building recently noted; brick; two stories; plans not complete; will manufacture patented woodworking machinery. (See "Machinery Wanted.")

Ky., Louisville.—Cars.—Louisville Railway Co. will remodel car repair shops and equip for manufacturing street cars; estimated cost \$100,000.

Md., Baltimore.—Iron.—P. Kennedy's Foundry and Baltimore Malleable Iron & Steel Casting Co. awarded contract to Edward Brady & Son, 1111-1113 Cathedral St., Baltimore, to erect addition to plant; one story; 57x52 feet; fireproof; brick.

Miss., Biloxi.—Iron Works.—Consolidated Iron Works will enlarge plant and add new machinery; has ordered equipment for marine work.

Tenn., Jackson.—Ornamental Iron, etc.—Jackson Ornamental Iron and Bronze Works, Thomas B. Hardman, manager, will erect 30x90-foot addition to plant; mill construction; no building proposals asked; equipment mainly supplied. (See "Machinery Wanted.")

Tenn., Nashville.—Boiler Shop and Iron Works.—Stewart & Bruckner, 157 Third Ave. North, purchased building at 141 and 143 Third Ave. North; will remodel and equip as boiler machine shop and sheet-iron works.

Tex., Humble.—Machinery.—Humble Machine Works will rebuild burned plant.

Va., Keysville.—Repair Shop, etc.—Jos. L. Pearson will establish small machine and repair shop near Keysville. (See "Machinery Wanted.")

Va., Lynchburg.—Plows, etc.—Lynchburg Foundry Co. will gradually change pipe works to special foundry, machine shop and plow foundry; writes to Manufacturers Record that change will "probably take two years to work out."

### GAS AND OIL DEVELOPMENTS

Mo., Springfield.—O. S. Sarber, representing Sarber Oil Co. of Parkersburg, W. Va., has negotiated for oil, gas and mineral privileges on about 3000 acres of land near Springfield; company contemplates expending \$35,000 in prospecting work.

Okla., Bartlesville.—Latimer County Gas Co., capital \$5000, incorporated by L. A. Rowland, Charles E. Jennings and Willis B. Priestley.

Okla., Cushing.—Cushing Gas Co., capital stock \$50,000, incorporated by Charles J. Wrightman, Tulsa, Okla.; B. B. Jones of Bristow, Okla., and John Devereux of Guthrie, Okla.

Okla., Coalgate.—Coalgate-Bromide Well Co., capital stock \$15,000, incorporated by J. B. Clark, J. L. Bruce and George D. Hodge.

Okla., Chickasha.—C. K. O'Hara of Duncan, Okla., applied to City Council for franchise to pipe natural gas into Chickasha from well near Duncan.

Okla., Okmulgee.—Okmulgee Producers' Drilling Co., capital stock \$10,000, incorporated by Lloyd W. Hampton, Horace L. Allen and Frank L. Lamb.

Okla., Oklahoma City.—Oklahoma City Oil Co., organized with Scott Braden president, W. R. Cruso vice-president, J. R. Thomas secretary, T. H. Stuart treasurer, and C. J. Phillips field manager; offices, 201-205 State National Bank Bldg., Oklahoma City; branch office, Beard Bldg., Sapulpa, Okla. (Recently reported incorporated with \$100,000 capital stock.)

Okla., Muskogee.—Tennessee Crude Oil & Mining Co., capital stock \$50,000, incorporated by L. B. Martin, W. W. Rains and J. M. Baker.

Okla., Muskogee.—Haskell Oil Co., capital stock \$100,000, incorporated by C. N. Haskell,

A. T. Wood and E. C. Y'Arnett; leased 1000 acres; Glen Pool District.

Okla., Lawton.—City Council granted franchise to C. K. O'Hara of Duncan, Okla., to pipe natural gas into Lawton from well near Duncan.

Okla., Tulsa.—Trinity Petroleum Co., capital \$15,000, incorporated by John W. McGee, Eulalia McGee and John W. Dodd of Tulsa, James P. McGee, Tulsa, Ill., and Thomas S. Jones, Corydon, Ind.

Okla., Tulsa.—Kehota Oil & Gas Co., capital stock \$10,000, incorporated by J. A. Hobson, R. W. Kellough and E. L. Talman.

Okla., Tulsa.—Emu Oil Co., capital stock \$5000, incorporated by Thomas D. Lyons and Benjamin F. Rice of Tulsa and Thomas W. Stephens of Montclair, N. J.

Okla., Tulsa.—Savoy Drilling Co., capital stock \$10,000, incorporated by Manuel Hirsh, C. C. Myers and C. E. Strouville.

Okla., Tulsa.—Spencer Creek Oil & Gas Co., capital stock \$10,000, incorporated by W. C. Hicks, Lon Hicks and Frank Z. Curry.

Okla., Wainwright.—Wainwright Gas & Power Co., capital stock \$25,000, incorporated by J. R. Harris of Fayetteville, Ark.; W. T. Amis, J. S. Amis and M. P. Amis, all of Muskogee, Okla.

Tex., Wichita Falls.—Mutual Oil & Gas Co. will develop oil property; drill test well on 1700-acre lease in Electra oil field within next two weeks; J. S. Alexander, president; H. E. Wilcox, vice-president; W. H. Shuler, secretary; P. J. Duffy, treasurer. (Recently noted incorporated with \$150,000 capital stock.)

W. Va., Parkersburg.—Congressional Oil Co., capital stock \$50,000, incorporated by W. M. Miller of Parkersburg, J. P. Chapman of Beumy, W. Va.; H. C. Woodward of Spencer, W. Va., and others.

W. Va., Shinnston.—Moose Oil & Gas Co., capital stock \$10,000, incorporated by F. C. Richardson, Q. M. Carder, Henry C. Robinson, John W. Carder, L. R. Nay and others.

### ICE AND COLD-STORAGE PLANTS

Fla., Pensacola.—United Fruit Co., New Orleans, La., and Boston, Mass., will, it is reported, build cold-storage plants at Pensacola and other Gulf ports.

Fla., St. Petersburg.—Citizens' Ice & Cold Storage Co., H. W. Hibbs, president, will erect cold-storage plant; two stories; pressed brick; cost \$12,000. (Recently mentioned.)

Md., Baltimore.—Terminal Freezing & Heating Co. will erect cold-storage warehouse; fireproof construction; six stories and basement; cost \$35,000; bids opened October 21; no machinery bids asked; George W. Wright, engineer, 430 S. Eutaw St., Baltimore. (Recently noted under "Miscellaneous Enterprises.")

Mo., Joplin.—Joplin Ice & Cold Storage Co. will erect brick fireproof building at 10th St. and Byers Ave., to be equipped as ice and cold-storage plant; will double present daily output of 75 tons of ice and increase cold-storage capacity to 5000 tons; estimated cost, \$100,000.

S. C., Union.—Union Ice & Fuel Co., capital stock \$12,000, incorporated by F. C. Duke, L. G. Young and R. A. Easterling.

Tex., Conroe.—Conroe Gin, Ice & Light Co. incorporated by W. J. Wahrenberger and others. (See "Cotton Compresses and Gins.")

Tex., Port Arthur.—Port Arthur Ice & Refrigerating Co. organized; takes over established property; no improvements contemplated. (See "Electric Plants.")

Va., Brookneal.—Liberty Orchards Co., O. B. Burrell, president, contemplates installing cold storage for apples and small fruits. (See "Land Developments" and "Machinery Wanted.")

Tex., Houston.—Gordon Sewell & Co. will install cold-storage plant. (See "Stores.")

### IRON AND STEEL PLANTS

Ky., Middlesboro.—Iron Furnace.—Virginia Iron, Coal & Coke Co., Bristol, Va.-Tenn., will, it is reported, repair and blow in iron furnaces.

### LAND DEVELOPMENTS

Ala., Birmingham.—Lincoln Park Land Co., capital stock \$2000, incorporated; Joseph P. Mudd, president; William S. Mudd, secretary-treasurer; Nellie N. Mudd, vice-president.

Ala., Birmingham.—Birmingham & Southeastern Railroad awarded contract to George Miles, Montgomery, Ala., to build 25 towns; organize companies to develop and market land and induce colonization; first company

reported organized at Eclectic (Elmore county) with J. A. Howell president and George Miles general manager.

Fla., Brevard County.—Southmere Farms & Fruit Co., 814 Commonwealth Bldg., Philadelphia, Pa., has about 35,000 acres of truck and citrus fruit lands in Indian River territory, in Brevard county; detailed information relative to developments not available at present. (Recently noted incorporated with \$500,000 capital stock by E. W. Sandford of Philadelphia and others.)

Fla., Jupiter.—Jupiter Fruit Farms Co., capital stock \$400,000, incorporated; John B. Brand, president; F. M. Blystone, vice-president; F. C. Miller, secretary; E. W. Philo, treasurer.

Fla., Jupiter.—Ohio-Florida Farms Co. will develop 120½ acres near Jupiter, growing grape fruit, oranges and vegetables; cost of improvements, \$30,000; George B. Donovan, president; H. T. Paul, vice-president; L. L. Larson, secretary, 207 New First National Bank Bldg., Columbus, O. (Recently noted incorporated with \$10,500 capital stock.)

Fla., Miami.—W. S. Burkhardt of Cincinnati, O., will develop truck-growing plantation in Florida, totaling about 1000 acres; also proposes to establish a catsup factory.

Ga., Macon.—Maitland and Linton Solomon purchased farm on Forsyth Rd. for \$32,500; reported to subdivide property and establish suburban resort.

Fla., Tarpon Springs.—J. F. Groene will develop 400 acres of farming land; contemplates operating experimental farm and establishing poultry plant.

Md., Baltimore.—Charles Heiser, 403 S. Payson St., purchased Snow Hill Farm, in Worthington Valley, and will expend \$50,000 for improvements.

Miss., Glen Allan.—Benine Plantation Co., capital stock \$50,000, Benine Planting Co., capital stock \$25,000, and Shotwell Plantation Co., capital stock \$25,000, incorporated by E. E. Richardson and others.

Miss., Green Grove.—Waverly Planting Co., capital stock \$20,000, incorporated by Ella O. Richardson, Edmund Richardson, J. R. McDowell and others.

Miss., Longwood.—Longwood Plantation Co., capital stock \$75,000, incorporated by James W. Miller, W. A. Everman and others.

Miss., Muldon.—Sykes Plantation Co., capital stock \$200,000, incorporated by J. C. McFarlane, Jr., Charles E. Hamilton and others.

Miss., Schlater.—Maryland Planting Co. (recently noted incorporated at Greenwood, Miss., with \$50,000 capital stock by R. Gidwitz and others) will develop 2000 acres of land in Leflore county; not fully organized. (See "Machinery Wanted.")

Miss., Napanee, P. O. at Helm.—Napanee Planting Co., capital stock \$100,000, incorporated by Charles H. Ewing, William H. Morrison, M. B. Gaskill and others.

Miss., Shaw.—Sunflower Planting Co., capital stock \$10,000, incorporated by G. W. Faison, Jr., J. L. Turner and H. C. Adams.

Miss., West Point.—Town Creek Alfalfa Co., capital stock \$1,000,000, incorporated by Gates T. Iry and B. H. Strong; will cultivate alfalfa, etc., in Clay county along R. F. D. No. 4.

Mo., St. Louis.—Mount Level Plantation Co., capital stock \$5000, incorporated by H. L. Albert, Allen Park and W. L. Wright.

N. C., Raleigh.—North Carolina Agricultural and Mechanical College purchased additional land and will improve as park; erect memorial gateway of granite.

S. C., Charleston.—Hyde Corporation, capital stock \$300,000, chartered by T. T. Hyde, Sr., T. T. Hyde, Jr., and Francis G. Ravenel.

S. C., Florence.—Florence Land Corporation, capital stock \$20,000, chartered by M. D. Lucas and E. E. Brunson.

S. C., Charleston.—Albemarle Real Estate Co., capital stock \$25,000, incorporated; F. G. Ravenel, president; T. T. Hyde, Jr., vice-president-treasurer; R. G. White, secretary.

S. C., Charleston.—Yellowstone Realty Co., capital stock \$15,000, incorporated by Charles Shreibe, M. Meyer, H. G. C. Hackerman and Santos Sottile; purchased Mappus property on Meeting-Street Rd. and will develop.

Tenn., Memphis.—H. W. Brennan purchased 17 acres land for \$50,000 and will develop as suburb; will make various improvements at cost of \$20,000, including grading streets, laying sidewalks, furnishing water, gas and electricity, etc.

Tex., Donna.—Rio Grande Valley Land Co., capital stock \$10,000, incorporated by Thomas B. Lee, D. C. Lorimer and Frank Dagle.

Tex., El Paso.—Hawkins Improvement Co., capital stock \$15,000, incorporated by W. W. Barbee, W. H. Hawkins and C. B. Hudspeth.

Va., Brookneal.—Liberty Orchards Co. (re-



cently noted incorporated with \$50,000 capital stock) will develop 400 acres in Campbell county; install canning factory, and cold storage for apples and small fruits; O. B. Burrell, president; W. L. Williams, secretary; L. L. Burrell, treasurer; building and machinery bids opened about January 1. (See "Machinery Wanted.")

### LUMBER MANUFACTURING

Ala., Brewton.—Cedar Creek Mill Co., T. R. Miller, president, is proceeding with erection of proposed rotary veneer mill; operation contemplated for January 1.

Ala., Selma.—Reid Lumber Co., ninth floor Brown-Marx Bldg., Birmingham, Ala., will add drykiln and planers to lumber plant recently noted purchased, including timber rights on 520 acres of land; daily capacity 25,000 feet of timber; equipment supplied.

Ala., Tunnel Springs.—Brent Lumber Co. incorporated to develop timber land in Monroe county.

Fla., Perry.—Taylor County Lumber Co. will build sawmill and develop timber property.

Ga., Meigs.—W. E. Aycock of Moultrie, Ga., and I. W. Myers of Tifton, Ga., purchased 2000 acres timber land in Thomas county near Meigs; contemplate cutting 20,000,000 feet lumber; propose building tram road connecting Meigs and Moultrie.

Ga., Waycross.—Anderson Lumber Co., capital stock \$100,000, incorporated by George W. Deen of Waycross, J. H. and F. A. Anderson of Columbia, Miss.

Ky., Murray.—L. M. Overbey and G. W. Wallis contemplate rebuild planing mill recently reported burned.

La., Baton Rouge.—Bienvenu Lumber & Manufacturing Co. will erect sawmill, consisting of three buildings; 33x150 feet; fireproof; cost \$50,000; machinery purchased; daily capacity, 50,000 feet of timber; R. S. Bienvenu, president; R. S. Bienvenu, Jr., vice-president; C. H. Bienvenu, secretary-treasurer. (Recently noted organized.)

La., Hayes.—Lacassine Lumber Co., capital stock \$10,000, incorporated by E. M. Bain, G. B. Woolman, J. H. Kelly and W. E. Cline.

La., Le Blanc.—Sanders-Brice Lumber Co., W. S. Kingrey, manager, will rebuild sawmill recently reported burned at loss of \$10,000.

La., Grabow.—Anacoco Lumber Co., A. G. Wachsen, president (recently noted incorporated with \$100,000 capital stock), acquired plant and timber holdings of Galloway Lumber Co.; install steam drykiln and steam nigger; some improvements not yet decided; enlarge planer facilities; mill costing \$25,000 to be erected by company's force; capacity 60,000 feet log scale; E. E. Richards, vice-president; B. R. Moses, secretary, treasurer and manager.

N. C., Asheville.—J. W. Clark of New York purchased 1100 acres timber land in Swain county for \$15,000.

N. C., Craven.—Craven Milling Co., Dr. C. M. Van Poole, proprietor, Salisbury, N. C., will rebuild sawmill, etc., recently reported burned. (See "Cotton Compresses and Gins" and "Machinery Wanted.")

N. C., Fontana.—R. E. Wood Lumber Co. will build sawmill with daily capacity 35,000 feet; C. L. Wood, general manager.

Va., Richmond.—Southern Hardwood Lumber Co., capital stock \$25,000, incorporated; J. K. Gruener, president; E. P. Murphy, vice-president; P. T. Murphy, secretary-treasurer; contemplates construction; not ready to announce plans.

W. Va., Charleston.—Ackels & Perkins Lumber Co., capital stock \$50,000, incorporated by F. O. Ackels, G. E. Griffin, G. A. MacQueen and others.

### METAL-WORKING PLANTS

La., New Orleans.—Cans.—American Can Co. awarded contract to George J. Glover of New Orleans to erect addition to plant; three stories; brick and reinforced concrete; composition roof; cost about \$40,000; plans by Favrot & Livaudais of New Orleans. (Recently mentioned.)

Mo., St. Louis.—Metal and Rubber.—F. Bierman Metal & Rubber Co., capital stock \$16,000, incorporated by Frederick, Samuel L. and Isaac Bierman.

### MINING

Ala., Gadsden.—Iron.—Northern Alabama Coal, Iron & Railway Co., Talladega, Ala., is planning to increase capacity of mines; install additional equipment, including one picker, crusher and air compressor with capacity to operate five drills; estimated that daily capacity of mines will be increased to 300 tons ore.

Ala., Oxmoor.—Iron.—McDonough Ore & Mining Co., capital stock \$5000, incorporated; R. W. McDonough, president; W. A. Porter, vice-president; J. H. McDonough, secretary-treasurer; all of Birmingham, Ala. (Mr. McDonough and associates recently reported to have purchased 2500 acres iron-ore land in Shades Valley near Oxmoor.)

Fla., Ellenton.—Fuller's Earth.—Atlantic Refining Co. will rebuild plant (including dry sheds and machine shop) reported burned at loss of \$100,000; J. R. Etter, local manager; report states company controlled by Standard Oil Co., 26 Broadway, New York.

Fla., Tampa.—Phosphate.—W. M. Brooks, general manager American Hardrock Phosphate Co., 1 Wall St., New York, and Floral City, Fla., states not ready to make announcements relative to developments; Chas. F. Robbins of New York, president; C. M. Knott, secretary; Chas. F. Robbins, Jr., treasurer; both of Tampa. (Recently noted incorporated with \$300,000 capital stock and to develop phosphate lands in Citrus and Hernando counties.)

Ga., Americus.—Lime Rock.—D. F. Davinport and associates contemplate development of 500 acres containing lime rock; 15 miles from Americus; probable capacity, 5000 to 10,000 tons.

Md., Cockeysville.—Marble.—William H. Matthal (secretary) National Enameling & Stamping Co., 1901-1919 Light St., purchased Beaver Dam Marble Works at Cockeysville; will improve and operate on enlarged scale.

Md., North East.—Feldspar, Silica, etc.—North East Mining & Milling Co., Hilton J. Doggett, vice-president and general manager, Havre de Grace, Md., has plans by Emory & Eisenbrey, industrial engineers, 2 S. 15th St., Philadelphia, Pa., for plant; one and two stories; corrugated galvanized-iron covered; plans and specifications obtainable from Mr. Doggett by those desiring to bid on construction of buildings. (Recently noted.)

Miss., Laurel.—Limestone, Marl, etc.—Louisiana Interstate Mineral Co. organized with following officers: President, C. F. Peterson, Hotel Monteleone, New Orleans, La.; vice-president, A. F. Peterson of Rew, Pa.; secretary, Clarence L. Foretich of Mobile, Ala.; treasurer, T. Bernard Burke of Eau Claire, Wis.; plans to develop 15,000 acres in Jasper and Smith counties by mining marl, limestone, etc., quarrying bluestone, manufacturing fertilizer, constructing hydro-electric plant for 10,000 horse-power, building two towns, constructing railway connecting Natchez and Meridian, etc. (Previously reported incorporated with \$3,000,000 capital stock.)

Mo., Joplin.—Lead and Zinc.—Red Cloud Mining Co., capital stock \$50,000, incorporated by Edward L. Williams, Daniel McMillan, J. M. Short, W. S. Pate and others.

Mo., Kansas City.—Lead and Zinc.—Porto Rico Mining Co., capital stock \$15,000, incorporated by E. S. Bigelow, D. I. Parsons and B. R. Clarke.

N. C., Charlotte.—Gold.—Clear Creek Mining Co. will be organized with \$50,000 capital stock by G. S. Pettit of Oklahoma City, Okla., and others; secured mining lease on 215 acres; allied with Surface Hill Mining & Milling Co. (recently reported incorporated by Mr. Pettit and associates), and development will adjoin Surface Hill property; latter expending \$40,000 for machinery, some of which has arrived, and arrangements are being made for its installation; to include smelter.

Va., Snowden.—Slate.—Williams Consolidated Slate Co., incorporated; W. E. Williams, president, Snowden; H. F. Rohman, vice-president, Toledo, O.; Hugh Williams, secretary and treasurer, Granville, N. Y.; capital \$150,000.

### MISCELLANEOUS CONSTRUCTION

Ala., Greensboro.—Tunnel.—Gulf, Florida & Alabama Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, will construct 1000-foot tunnel north of Greensboro in connection with 300 miles of railroad to be built from Pensacola, Fla., to Jasper, Ala. (See "Bridges," Ala., Jasper.)

Ark., England.—Levee.—Plum Bayou Levee Board will construct 80,000 cubic yards of levee work in Plum Bayou Levee District; receives bids until November 4; R. B. Eggleston, chief engineer. (See "Machinery Wanted.")

Fla., Jacksonville.—H. H. Richardson, secretary Board of Trade, advises that city will vote January 21 on bond issue of \$1,500,000 for municipal docks; if (as proposed) middle ground in St. Johns River is used, 200

acres of land may be reclaimed and reinforced concrete bulkheads constructed, making two-mile frontage on each side of peninsula; probable expense, \$1,000,000. (Recently noted authorized by Legislature.)

Ga., Augusta.—Levee and Bulkhead.—Canal and River Commission awarded contract to A. J. Twigg & Sons of Augusta at \$128,700 to construct first section of levee one mile long along river front from Canal Bank to Hawks Gulley, including bulkheads and control gates; contract calls for clearing of 10 acres land, placing of 200,000 cubic yards of dirt on levee and removal of 25,000 cubic yards of earth. (Call for bids lately noted.)

Ky., Paducah.—Mausoleum.—Western Kentucky Mausoleum Co., capital stock \$150,000, incorporated by Guy Nance, F. W. Katterjohn, R. Rudy, S. Z. Holland and others; will build mausoleum to contain 300 crypts.

La., Baton Rouge.—Levees.—Executive department, Luther E. Hall, Governor, will construct Cornland levee, on left bank of Mississippi River, in St. John the Baptist parish; contents 55,000 cubic yards; bids received October 22 at office of Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La. (See "Machinery Wanted.")

Miss., Vicksburg.—Levee.—Mississippi River Commission, Third District, U. S. Engineer Office, recommends following contracts for construction of 1,471,000 cubic yards of levee work: On Mississippi side, including Rose-dale and Beulah, Eatherly, Richards, Stacey and Allen; Clarke & Co. for Baleshed, and J. M. Sullivan for Filters Landing; on Louisiana and Arkansas side, Roach & Stanzell and Lorance Bros. Following levees are to be improved: Panther Forest, sections 1 and 2, 375,000 yards; Panther Forest, section 2, 125,000 yards; Panther Forest, section 1, 35,000 yards; Bellevue, 60,000 yards; Upper Leeland, 50,000 yards; Louisiana, Lake Providence, 115,000 yards. Lower Yazoo District—Rosedale, 110,000 yards; Lake Beulah, sections 1 and 3, 380,000 yards; Lake Beulah, section 2, 10,000 yards; Lake Beulah, section 3, 90,000 yards; Baleshed, 135,000 yards; Filters, 155,000 yards. Upper Tensas Levee District—Arkansas, Arkansas River spur dike, 24,000 yards; Middle Place, 50,000 yards; R. R. enlargement, 100,000 yards. (Call for bids lately noted.)

Tex., Brownsville.—Ship Channel.—Brownsville Ship Channel Association engaged Davis & Tamm, Brownsville, to make preliminary survey, etc., for previously-noted sea-level canal; engineers to report on 25-foot channel, 100 feet on bottom, slopes 2 to 1, with maps, profiles, estimates and other data.

Va., Hampton.—Terminals.—Hampton Roads Terminal Corporation, capital stock \$50,000, chartered; M. C. Armstrong, president; R. M. Booker, secretary, both of Hampton; Fergus Reid, treasurer, of Norfolk, Va.

### MISCELLANEOUS ENTERPRISES

Ala., Gadsden.—Contracting.—Kyle Real Estate & Building Co. incorporated with \$100,000 capital stock; Otis Wragg, secretary-treasurer. (Recently noted at Montgomery, Ala.)

Fla., Blountstown.—Publishing.—County Record Publishing Co., capital stock \$2500, incorporated; B. W. Elmore, president; N. S. Howard, vice-president; G. M. Shepard, secretary-treasurer.

Fla., Fort Myers.—Steamship Line.—Towles Steamship Line, capital stock \$50,000, incorporated; W. H. Towles, president.

Fla., New Smyrna.—New Smyrna Beach Improvement Co., capital stock \$55,000, incorporated; Percy Westmacott, president.

Ga., Savannah.—Ferry.—Georgia-Carolina Ferry Co., capital stock \$15,000, incorporated by Mills B. Lane, F. G. Bell, C. G. Wilkinson and others.

Ga., Valdosta.—Abattoir.—City will build abattoir; cost \$15,000; bids opened.

La., New Orleans.—Laundry.—Company represented by Gallagher Auction & Real Estate Co., 334 Carondelet St., rented building 70x300 feet a Dryades and Perdido Sts., and will equip as laundry; will expend \$2500 in improvements and partial reconstruction of building; machinery purchased; laundry company being organized with \$50,000 capital stock.

Md., Baltimore.—Publishing.—Baltimore Democrat Publishing Co., capital stock \$10,000, incorporated by Richard Respass (3137 Abell St.), John M. Berger (842 N. Eutaw St.) and Edward R. Bussey (1212 Montford Ave.).

Mo., Salisbury.—Publishing.—General Pub-

lishing Co., capital stock \$25,000, incorporated by L. H. Miles, J. P. Hayward and D. B. Miles.

Mo., St. Louis.—Frederick Skrainka and Laura Well, latter of New York, will erect building at 105-110 N. 3d St., which will probably be adapted for printing plant.

N. C., Kinston.—Laundry.—Dr. R. M. Hardy is having plans prepared by Hook & Rogers, Charlotte, N. C., for laundry; 51x51 feet; two stories; brick; artificial stone trimmings; electric lighting; slate roof. (See "Machinery Wanted.")

N. C., Salisbury.—Poultry.—F. F. Corlias, Box 482, contemplates building poultry plant; plans not definite.

Okla., Hydro.—Hardware.—Palmer Hardware Co., capital stock \$6000, incorporated by J. D. Palmer, W. L. Townsend and J. V. Stone.

S. C., Charleston.—Hardware.—Strohecker Hardware Co., capital stock \$10,000, incorporated; H. O. Strohecker, president-treasurer; H. O. Strohecker, Jr., vice-president; W. G. Mazyck, Jr., secretary.

Tenn., Chattanooga.—Paint, etc.—International Cement & Paint Co., capital stock \$100,000, incorporated by W. P. D. Moross, C. A. Moross, K. Q. Kirk, R. H. Williams and George D. Lancaster.

Tenn., Chattanooga.—Stagmaster & Co., capital stock \$50,000, incorporated by Charles H. Stagmaster, Harry F. Stagmaster, John J. Stagmaster, J. D. Mitchell and John Fridell.

Tenn., Chattanooga.—Printing.—Colortype Printing Co., capital stock \$10,000, incorporated by N. B. Jarrett, L. R. Jarrett, W. R. Moyers, J. W. Eastman and others.

Tenn., Humboldt.—Hardware.—Tennessee Hardware Co., capital stock \$20,000, incorporated by B. F. Jarrell, T. N. Nelson, W. L. Bradford and others.

Tenn., Knoxville.—Laundry.—Hermitage Laundry will enlarge to increase capacity; has ordered carload of new machinery.

Tenn., Memphis.—Lithotyping.—William Dockery has plans by Victor Dunkerley for building to be occupied by Memphis Lithotype Printing Co., now located at 54 N. 3d St.; structure will be three stories; 49x109 feet; pressed brick exterior; estimated cost, \$18,000.

Tenn., Nashville.—Publishing.—Jacksonian Publishing Co., capital stock \$35,000, incorporated by W. W. Heathcock, W. A. Caldwell, T. W. Pope, W. M. Short and others.

Tex., Brownsville.—Grain Elevator.—Martin Restrepo will build grain elevator and feed mill to cost \$20,000.

Tex., Houston.—Printing.—W. R. Morin & Co., capital stock \$10,000, incorporated by W. R. Morin, Roger T. Boyles and Russell Ramsey.

Tex., Houston.—Transportation.—Southern Transportation Co. represents merger of Galveston, Harrisburg & Houston Transportation Co. of Houston and Teche Transportation Co. of Louisiana; will conduct sand, gravel, hauling and barge business; C. A. Barbour, president; Travis Holland, treasurer; W. B. Ward, secretary. (Previously reported incorporated under New Orleans with \$500,000 capital stock.)

Va., Alexandria.—Music Publishing.—Marks-Goldsmith Company incorporated with Harry B. Goldsmith president, 929 Virginia Ave. S. W.; Merton M. Marks, vice-president-secretary; L. Brent Nye, treasurer; Clarence Dodge, assistant treasurer, all of Washington, D. C.

Va., Tappahannock.—Printing.—Tidewater Democrat will rebuild plant recently reported burned; 18x28 feet; practically fireproof construction; contract awarded to F. W. M. Pützner of Tappahannock. (See "Machinery Wanted.")

### MISCELLANEOUS PLANTS

Ala., Mobile.—Shipping Cases.—James L. Morlan contemplates establishing plant to manufacture shipping cases of wood and corrugated paper.

D. C., Washington.—Dish Drainers.—Sonne-man Dish Drainer Co., capital stock \$75,000, incorporated by George Edlin and Frank O. Parker, Ouray Bldg., both of Washington, and George H. Snyder, Kensington, Md.

D. C., Washington.—Acroplanes.—Molsant Monoplane Co., A. E. Wuppermann, secretary-treasurer, New York, will, it is reported, establish aeroplane plant at College Park.

Fla., Fort Meade.—Explosives.—South Florida Explosive Co., capital stock \$6000, incorporated; P. M. Fuller, president.

Fla., Daytona.—Tire Filler.—Pneu Tire Filler Co., capital stock \$2500, incorporated; V. P. Collins, president.

Fla., Tampa—Candy.—Carter Candy Co., capital stock \$20,000, incorporated; C. C. Carter, president-general manager; L. M. Adams, vice-president; W. C. Stanley, secretary.

Ky., Louisville—Paint.—Lampton, Crane & Ramey Company will repair paint factory burned at loss of about \$30,000.

Ky., Louisville—Bakery.—Grocers' Baking Co. will erect bakery at 1449 S. 7th St.; two stories; brick and concrete; estimated cost \$16,000.

Ky., Louisville—Drugs, Candies, etc.—DeLish-Etts Manufacturing Co., capital stock \$25,000, incorporated by X. W. Wittman, Samuel G. Tate and George W. Forman of Louisville and others.

La., Bogalusa—Turpentine, etc.—Louisiana Forest Products Co. will establish plant to utilize waste products of timber lands for manufacture of turpentine, rosin, charcoal and tar; bids received until noon November 1; specifications call for power-house and refinery, of brick, with concrete floor and roof; retort-house of steel, corrugated iron roof, concrete floor; solvent-house of steel, corrugated-iron roof and concrete floor; condenser-house of steel, corrugated-iron roof and concrete floor; raw products storage-house with concrete piers and floor; steel pump-house; finished products storage-house; filling-room of steel with concrete floor; cooperage plant of steel with concrete floors; empty barrel storage-house of steel with concrete floors; blacksmith and machinery shop of steel with concrete floors; charcoal storage-house of frame and office building of frame; water tower and tank with fire-protection system; standard-gauge switch; narrow-gauge track; equipment will include electric-light plant; total cost \$250,000. George U. Borde, consulting engineer, New Orleans, La. (Previously mentioned.)

La., Thibodaux—Gas.—Francis L. Knobloch (recently noted applying for franchise) states contemplates erection of plant to furnish cooking and heating gas for town of 5000 (present) population; contemplates construction of plants in other towns in same section.

La., Friscoville, P. O. at St. Bernard—Shredding Plant.—St. Bernard's Palmetto Shredding Plant (Felix and Fernando Freye, proprietors) contemplates enlarging factory; product is used in manufacture of mattresses, saddles, etc.

Md., Baltimore—Distillery.—George Bros. Distilling Co., capital stock \$100,000, incorporated by Herman T. W. Helmiller (22 E. Lexington St.), John L. Donellan and Joseph L. McAllister.

Md., Baltimore—Belting.—Druid Oak Belting Co., 101-103 Balderston St., increased capital stock from \$30,000 to \$50,000; will install belting machinery and extend business territory.

Md., Baltimore—Cigars.—John E. Hendricks, 201 W. Conway St., will erect addition to plant; four stories; brick; 22x30 feet; will equip for manufacturing cigars.

Md., Baltimore—Elmer A. Parrish, 2040 E. North Ave., prepared plans for factory building at Holliday and Saratoga Sts.; 129x97½ feet; four stories; estimated cost \$50,000; Isaac Ellinger, 314 St. Paul St., represents manufacturing company.

Mo., Kansas City—Distillery.—Evans-Cahn-Levitt Distilling Co. increased capital stock from \$40,000 to \$60,000.

Mo., St. Louis—Couches, Mattresses, etc.—Taylor Couch & Bedding Co., John H. Taylor, manager, 4522 N. Broadway, will incorporate to manufacture couches, davenports, mattresses, pillows, etc.; is erecting 50x83-foot building; three stories; cost \$10,000; machinery includes carding machines, cotton pickers, mattress-stuffing and couch-pad machinery. (C. C. Taylor recently noted to erect factory.)

Mo., St. Louis—Piston Rings and Piston-rod Devices, etc.—Ever-Tight Piston Ring Co., capital stock \$200, incorporated by Ambro J. Norcraft, Edward B. Campbell and Walter Hafferkamp.

Mo., St. Louis—Peroxide, etc.—Peroxide Specialty Co., capital stock \$50,000, incorporated by John B. Brunner and Fred T. Barnett; offices, 6300 Etzel Ave.

Mo., St. Louis—Pianos.—Continental Piano Manufacturing Co., capital stock \$200,000, incorporated by O. C. Nelson, William Helne, D. E. Noack and others.

N. C., Winston-Salem—Tobacco.—R. J. Reynolds Tobacco Co. will erect building; five stories; concrete; 100x175 feet; fireproof. (Recently noted as increasing capital stock to \$10,000,000.)

Okla., Garnett—Lime.—Hughes Stone Co., Tulsa, Okla., will install lime-burning plant; recently noted under "Miscellaneous

Enterprises" at Tulsa, Okla., to increase capacity of plant. (See "Machinery Wanted.")

Okla., Muskogee—Automatic Air Controlling Device.—Taylor Automatic Air Controlling Co., capital stock \$25,000, incorporated by Nick Taylor, Tessie M. Taylor and Geo. Updegraff.

Okla., Oklahoma City.—Vimedia Company, capital stock \$15,000, incorporated by Ida F. Hasley and C. W. Stone of Oklahoma City and Henry Hasley of Britton, Okla.

S. C., Charleston—Packings.—General Asbestos & Rubber Co. contemplates erection of plant; not ready to announce plans.

Tenn., Chattanooga—Paper Boxes, etc.—Andrews Paper Box Co., capital stock \$30,000, operates plant on first floor of Acme Box Co.'s building; O. B. Andrews, president and general manager; T. R. Preston, vice-president; Z. C. Patten, Jr., secretary; manufactures corrugated straw board, shipping cases, fillers, cartons, etc. (Previously noted incorporated.)

Tenn., Knoxville—Factory Building.—T. B. Thackston, secretary Board of Commerce, formulated plans for erection of building to accommodate manufacturing companies desiring to lease floor space instead of purchasing property.

Tenn., Knoxville—Hats.—S. C. Dismukes Hat Co., capital stock \$30,000, incorporated by S. C. Dismukes, W. R. Barnett, Jr., Asa Hazen and others.

Tenn., Nashville—Brewery.—William Gerst Brewing Co. will erect three storage bins at Sixth Ave. and Mulberry St.; cost \$7500.

Tenn., Knoxville—Cider, etc.—East Tennessee Nova Kola Co., capital stock \$10,000, incorporated to manufacture cider, vinegar, etc., by B. F. Lively, John W. Russell, Jr., H. N. Curd and others.

Tex., Dallas—Explosives.—Cullum & Boron Explosive Co., capital stock \$1000, incorporated by J. T. Wilson, J. E. Sandusky and T. M. Cullum.

Tex., Richmond—Bakery.—T. B. Wisendoff will remodel brick building and equip as bakery.

Tex., Victoria—Syrup and Coffee.—Victoria Syrup & Coffee Co., capital stock \$20,000, organized with R. B. Hamlett, president-manager; M. H. Williams, vice-president, and Frank S. Buhler, secretary-treasurer; will establish plant to refine and can molasses now being produced by company and to import coffee for roasting, grinding and packing; will erect 20x50x100-foot building; mill construction; bids opened October 15. (Recently reported incorporated.)

Va., Norfolk—Gloves.—Ritter Manufacturing Co., W. W. Ritter, president (recently noted incorporated with \$5000 capital stock), leased building and will manufacture canvas gloves, mittens, etc. (See "Machinery Wanted.")

Va., Norfolk—Royal Silver Manufacturing Co. increased capital stock from \$10,000 to \$25,000.

Va., Richmond—Cigarettes.—Tobacco Products Corporation, capital stock \$10,000,000, chartered with following officers: President, Jos. C. Taylor of Richmond; vice-presidents, Leonard B. McKitterick, Reuben M. Ellis and Joseph A. Bennett; treasurer, Harry B. Watt; secretary, Gray Miller; each of New York; plans to manufacture cigarettes for national trade.

W. Va., Moundsville—Drugs.—J. H. Beam Drug Co. has plans by and awarded contract to Riggs Bros. of Moundsville to erect building; 50x110 feet; 2½ stories; tile and stucco; hot-water heat; electric lighting; lift elevator to first floor; composition roof; cost \$10,000. (See "Machinery Wanted.")

W. Va., Nicolette.—Amusement Park Specialties.—Breinig Manufacturing Co. will establish plant for manufacturing amusement park specialties; first building will be 100x100 feet; four sides; galvanized; construction by company; plans by M. Wendel. (Recently mentioned.)

### MOTORS AND GARAGES

Ky., Louisville—Garage.—G. G. Botts, A. T. Hert, Richard V. Look and associates organized General Motors Co. with \$100,000 capital stock; will establish selling and distributing agency for pleasure cars and commercial trucks; Mr. Botts, secretary-treasurer.

Md., Baltimore—Automobile.—Ford Auto Co., A. Maurice Eastwick, manager, 122-124 W. North Ave., will erect two-story building at 126 W. North Ave.; site, 20x110 feet; Thomas B. Stanfield & Co., 109 Clay St., Baltimore, are reported as preparing plans.

Mo., Kansas City—Garage.—George E. Bowling & Son, 303 Gordon & Koppel Bldg., will expend \$20,000 to \$25,000 to erect

garage; 50x124 feet; two stories and basement; mill construction. (See "Machinery Wanted.")

Mo., Kansas City—Garage.—Kansas City Automobile Co., 1504 Grand Ave., will erect four-story garage to cost \$40,000.

Mo., Kansas City.—H. B. Sappe will erect brick garage at 1809 McGee St.; cost \$8000.

Mo., St. Louis—Garage.—Provident Realty & Investment Co. awarded contract to B. Burns, 1105 Chestnut St., St. Louis, to erect garage; 50x150 feet; ordinary construction; cost \$15,000; plans by T. C. Barnett Architectural Co., Century National Bank Bldg., St. Louis. (Recently noted.)

Mo., St. Louis—Garage.—Ada Blossom will build garage at 829 Union Blvd.; two stories; cost \$4000.

Mo., St. Louis—Garage.—Olach Realty Co. will, it is reported, erect automobile building; 100x155 feet; cost \$200,000.

Mo., Brookfield—Garage.—Brookfield Garage Co., capital stock \$10,000, incorporated by R. S. Brownlee, Frank Dick and Augustus Cannon.

N. C., Asheville—Garage.—Wrenn & Carland, 7 S. Lexington Ave., Asheville, have contract to erect garage; three stories and basement; fireproof construction; brick and stone; cost \$20,000. (See "Machinery Wanted.")

Tenn., Nashville—Garage.—Louis Lebeck will build two-story garage at Broad St. and Fourteenth Ave.; estimated cost, \$20,000.

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ala., Gadsden—Alabama Great Southern Railroad, H. Baker, general manager, Cincinnati, O., will, it is reported, provide additional appropriation for further extensions and improvements at Gadsden car shops; new machinery is now being installed in department for repairing steel cars.

Mo., Kansas City—Union Pacific Railroad, R. L. Huntley, chief engineer, Omaha, Neb., will enlarge freight facilities at cost of about \$100,000; proposes to erect incoming freight-house to cost \$45,000, transfer station and addition to present outgoing freight building.

Tex., Brownwood—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., authorized its engineers to advertise for bids to construct system of freight yards and terminals costing \$520,000; facilities will include division freight yard, to cost \$251,000; engine, coach and repair yards and equipment, \$170,000; 12-stall brick engine-house (92-foot standard low type), \$45,000; standard 85-foot turntable, \$11,000; brick machine shop, \$10,000; car-repair shed with service track, \$8500; brick power-house, \$8000; sandhouse with service track, \$5500; roundhouse, foremen's office and supply-house, \$2500, and engine supply-house, \$1300; engine, coach and repair yards and equipment will contain (in addition to engine, coach and repair facilities) tracks and track scales, septic tank, 20x50-foot steel water tank, cranes, fuel-oil facilities, and necessary water, steam and air lines; grade crossings to be eliminated in freight terminals by concrete subways at additional cost of \$100,000; these will include two subways with concrete retaining walls reinforced by steel rods at intersection of Austin and Vine Sts. with yard tracks; overhead tracks to be supported on structural steel I beams. (Recently mentioned.)

### ROAD AND STREET WORK

Ala., Alexandria—Calhoun County Commissioners, Anniston, Ala., awarded contract to Goodrich & Crinkley of Anniston to construct two miles of macadam road on Alexandria Rd.

Ala., Birmingham—City will pave Phelan St. from Glen Iris Ave. to Twelfth Ave., embracing 2400 square yards paving; Walter G. Kirkpatrick, City Engineer, received bids until October 22; bids to be submitted on bituminous concrete, asphaltic concrete and bituminous binder macadam.

Ala., Gadsden.—Bellevue Highland Co. states grading is one-half completed on 100-foot boulevard now being constructed from brow of Lookout Mountain to Black Creek Falls through sub-division of 253 acres land.

Ala., Rockford.—Coosa County Board of Revenue awarded contract to W. A. Verner to grade, drain and surface with top soil six miles of Kellyton and Rockford Rd.; W. S. Keller, State Highway Engineer, Montgomery, Ala. (Call for bids lately noted.)

Fla., Plant City.—City awarded contract to Smith & Waver to grade and pave streets.

Fla., Dade City.—City will make improve-

ments to certain streets; amount available, \$27,000; J. P. Phinney, City Engineer; will let contract about December 1; bond issue of \$12,000 recently noted voted. (See "Machinery Wanted.")

Fla., Kissimmee.—City awarded contract to H. S. Jaudon Engineering Co. of Savannah, Ga., to construct six miles of sidewalks.

Fla., Plant City.—City votes November 2 on \$25,000 bond issue for street paving. Address The Mayor. (Previously mentioned.)

Ky., Louisville.—City will construct grand-told sidewalks at cost of about \$2000 on portions of 6th, Payne, Walnut and Campbell Sts.; Board of Public Works receives bids until October 28.

La., Jeanerette.—City awarded contract to Southern Bitulithic Co. (main office, Nashville, Tenn.) to pave streets; Southwestern Traction & Power Co. also awarded contract to same company at about \$16,000 to concrete trolley track through city.

Ky., Pikeville.—City will construct 25,000 square yards street paving; City Council receives bids until December 9; A. S. Reese, City Clerk; Stoney Amick, City Engineer. (See "Machinery Wanted.")

Ky., Pineville.—Bell county will construct road on Greasy Creek; width 12 feet; B. A. Fuson, County Judge, receives bids until November 6. (See "Machinery Wanted.")

La., Shreveport.—City will pave Herndon Ave. from Creswell to White St. and White St. from Herndon Ave. to Wilkinson St. with asphaltic concrete; L. H. Baker, secretary-treasurer, receives bids until October 29. (See "Machinery Wanted.")

Md., Baltimore.—Paving Commission, R. Keith Compton, chairman, prepared list of streets to be improved during 1913, calling for about 70 streets or 30 miles of paving.

Md., Oakland.—Garrett County Commissioners contemplate building road from Bond, Md., to Bloomington, about 12 miles.

Miss., Gulfport.—Harrison County Supervisors awarded contract to Hallis Taylor at \$1000 to construct three miles of road leading into Long Beach.

Miss., Laurel.—City awarded contract to Southern Paving & Construction Co. of Chattanooga, Tenn., at \$47,892 for paving 17,000 square yards of street with creosoted wooden blocks; also awarded contract to S. A. Carnes of Laurel to lay water and sewer pipes in paved district. (Call for bids lately noted.)

Miss., Magnolia.—Pike County Supervisors awarded contract to Williams & Williams of Osyka, Miss., to construct roads in first district for unexpired term of Allman & Burkhalter.

Miss., Poplarville.—Pearl River county contemplates voting on \$25,000 bond issue for road construction. Address County Commissioners.

Miss., West Point.—Supervisors' District No. 1 will let contract 2 P. M. November 8 for grading and surfacing about nine miles highway; plans, etc., with Chancery Clerk and District Engineer; Smith & Hanser, engineers. (See "Machinery Wanted.")

Mo., Chillicothe.—City awarded contract to Rackliffe-Gibson Construction Co. of St. Joseph, Mo., to pave E. Webster St. with Hassam; B. F. Thorp, City Engineer.

Mo., Jefferson City.—City awarded contract to Fred Wolf of Jefferson City at \$8100 to grade, curb and pave Lafayette St. with vitrified brick; P. C. Harding, City Engineer; J. Frank Morris, City Clerk.

Mo., Nevada.—City will vote on \$20,000 bond issue to construct section of North-and-South Rd. Address The Mayor.

N. C., Charlotte.—City will pave sidewalks on North Tryon St.; 1040 square yards concrete walk, 1200 cubic yards grading and removal of 56 trees; Executive Board of city receives bids until October 23; A. H. Wearn, City Clerk. (See "Machinery Wanted.")

N. C., Charlotte.—City will construct about 52,781 square yards paving and Roman Rd. pavement; bids received by Executive Board until 8 P. M. October 30; Joseph Firth, City Engineer. (See "Machinery Wanted.")

N. C., Fayetteville.—Cumberland County Commissioners awarded contract to J. R. Thomas & Son of Greensboro, N. C., to rebuild portion of sand-clay Murchison Rd.

N. C., Southport.—City awarded contract to Frank M. Abel of Wilmington, N. C., to lay concrete walks; about 3000 square yards. (Bids recently noted.)

Okla., Checotah.—City awarded contract to Levy & Levy, Muskogee, Okla., at \$10,000 for sarcolithic mineral rubber pavement; W. W. Southard, City Engineer.

Okla., Fort Sill.—Government will construct roads, gutters, drains, etc.; Constructing



Quartermaster receives bids until November 11. (See "Machinery Wanted.")

Okla., Okmulgee.—City awarded contract to Levy & Levy, Muskogee, Okla., at \$20,000, for asphaltic concrete pavement in Improvement District No. 2; James G. Lyons, Commissioner of Public Works, in charge.

Okla., McAlester.—City, J. M. Gannaway, clerk, receives bids until 10 A. M. October 30 for macadamizing C St. from Grand to Harrison Ave.; excavation, curbing and gutter included; recently noted. (See "Machinery Wanted.")

Okla., Muskogee.—City awarded contract to Heman Construction Co. of Muskogee at \$8800 to pave Live Oak St. in district 145 with bituminous concrete.

S. C., Gaffney.—City, Thos. B. Butler, Mayor, will pave 5000 square yards cement sidewalk and about same amount linear feet curbing; bids opened October 21; contract not yet let; about \$6000 available; L. Lipscomb, City Engineer.

Tenn., Memphis.—City Commission authorized letting of two paving contracts: E. Carolina Ave. from Florida to S. 2d St., 1500 feet, with vitrified brick on concrete foundation, and S. Main St. from California to Iowa Ave., 2900 feet, with wood blocks on concrete foundation.

Tenn., Morristown.—City awarded contract to Murry Construction Co. of Knoxville, Tenn., at \$24,965.79 to lay seven blocks of paving in business district; all streets to be paved with asphalt with exception of Cumberland Ave., which will be paved with brick; sewers and gutters of brick; J. E. Thompson and E. C. Brown, engineers. (Recently noted.)

Tenn., Waynesboro.—Wayne County Commissioners, Waynesboro, and Lawrence County Commissioners, Lawrenceburg, Tenn., contemplate construction of road to connect Waynesboro and Lawrenceburg; former county to build road from Waynesboro to Lawrence county line and latter from Lawrenceburg to Wayne county line.

Tex., Alvin.—City will improve streets at cost of about \$7000 after completion of drainage system. Address The Mayor.

Tex., Bonham.—City will pave four blocks with Oklahoma rock asphalt; concrete curbs and gutters; \$35,000 available; T. H. Kennedy, City Clerk, City Hall, receives bids until October 25; Preston C. Thurmond, City Engineer; T. W. Ragsdale, Mayor. (See "Machinery Wanted.")

Tex., Corsicana.—City votes October 29 on \$20,000 bond issue for paving. Address The Mayor.

Tex., Gonzales.—Gonzales county, W. B. Green, County Judge, will construct proposed (about) 75 miles gravel and sand-clay roads; bids asked by County Commissioners' Court, and to be opened 3 P. M. November 15; plans, specifications, etc., with county road engineers, Tips & Burchard, Gonzales. (See "Machinery Wanted.")

Tex., Houston.—City will pave portions of Alabama, San Jacinto and Travis Sts. and McGowen Ave.; three streets are to be paved with bitulithic and one with creosoted wood blocks; H. B. Rice, Mayor, authorized to advertise for bids; City Council also authorized paving of another section of McGowen Ave. and portion of Fannin St. with bitulithic.

Tex., Orange.—Green Godwin has contract for completion of trans-Calcasieu Rd. leading east from Sabine River through marsh lands of Calcasieu parish, about three miles. (Call for bids lately noted.)

Tex., Richmond.—Road District No. 1 of Fort Bend county votes November 5 on \$350,000 bond issue for road construction; contemplated to build six shell or gravel roads. Address County Commissioners.

Tex., Wichita Falls.—City will vote November 5 on \$22,000 bond issue for street improvements and sewer construction. Address The Mayor.

Va., Wise County.—T. W. Pepper, Mayor of Norton, Va. (recently noted as chairman of committee), states Gladeville district will vote on bond issue of \$125,000 to \$165,000 for grading and macadam. (Recently reported.)

## SEWER CONSTRUCTION

Ark., Arkansas City.—City is planning installation of sewer system; population 2600; Frank Ramus, Mayor. (See "Machinery Wanted.")

D. C., Washington.—District of Columbia will construct sewers; commissioners receive bids until November 1. (See "Machinery Wanted.")

Fla., Mulberry.—E. H. Dudley, Acting Mayor, states if bond issue is carried, city will install sewer system and disposal tank;

cost \$20,000; J. B. McCrary Company, Atlanta, Ga., engineer in charge. (Recently noted as to vote October 22 on bond issue for water-works and sewer system.)

Fla., Plant City.—City votes November 2 on \$25,000 bond issue for sewer construction. Address The Mayor. (Previously mentioned.)

Fla., Fort Lauderdale.—City awarded contract to Isaac C. Michler at \$28,558 to construct sewer system and water-works. William H. Marshall, Mayor. (See "Water-works.")

Fla., West Palm Beach.—City will construct 22,000 feet concrete sewer pipe with manholes and septic tank; bids opened November 19; A. M. Lopez, City Clerk. (See "Machinery Wanted.")

Ga., Byromville.—City (recently noted voting \$3000 bond issue for sewers) will install 1½ miles sewer main, with flush tanks and manholes; W. H. Byrom, president, Byrom corporation.

Ga., Waycross.—City will expend \$30,000 for improvements to sewers and water-works, including two miles of sanitary sewers, etc., recently noted. (See "Water-works.")

Ky., Louisville.—Board of Tuberculosis Hospital, L. J. Dittmar, president, 121 W. Chestnut St., will construct concrete sewage-disposal plant at Waverly Hill Sanatorium; receives bids until October 28. (See "Machinery Wanted.")

La., Shreveport.—City will construct about 755 feet of storm-water sewer on Pierre Ave. with cement tiling; L. H. Baker, secretary-treasurer, receives bids until October 29. (See "Machinery Wanted.")

La., Vivian.—City retained W. Grant, consulting engineer, to prepare plans and specifications for sewer system and water-works; estimated cost \$40,000. R. B. Baker, Mayor.

Md., Princess Anne.—Town awarded contract to Pusey & Allen to construct sewer system. (Bond issue of \$10,000 previously reported voted to construct sewer system and increase water supply.)

N. C., Charlotte.—City will construct about 16 miles sewers and drains 24 inches to 8 inches diameter; plans and specifications with Joseph Firth, City Engineer; recently noted. (See "Machinery Wanted.")

N. C., Greensboro.—City Commissioners awarded contract to Carolina Concrete Co. of Greensboro at \$4000 to construct concrete septic tank on Muddy Branch and laying about 6800 feet 18-inch terra-cotta pipe sewer from end of present Muddy Branch sewer outfall to septic tank, complete, with manholes, etc.; T. J. Murphy, Mayor. (Call for bids lately noted.)

N. C., Wilmington.—City purchased plant of Wilmington Sewerage Co. for \$130,000; contemplates extending system in northern, eastern and southern portions of city; F. F. Pillet, City Engineer.

Okla., McAlester.—City awarded contracts to F. S. Snedley of Muskogee, Okla., at \$3016.36 and \$7854.63 to construct sewers.

Okla., Sulphur.—City will, it is reported, vote on \$17,500 bond issue for sewer construction. Address The Mayor.

Tenn., Jackson.—Sewerage committee recommended bid of Ideal Plumbing Co. of Milwaukee, Wis., at \$29,555 to construct Northeast Jackson sewer system; John L. Williams, City Engineer. (Call for bids lately noted.)

Tenn., Knoxville.—City awarded contract to O'Connor Construction Co. of Knoxville at \$70,218.83 to construct Third Creek sanitary sewer and outfall into Tennessee River; 2200 linear feet 42-inch pipe, 2500 linear feet 39-inch pipe, 280 linear feet 36-inch pipe, 700 linear feet 33-inch pipe, etc. (Call for bids lately noted.)

Tex., Cuero.—City awarded contract to Fountain-Shaw Engineering Co. of Dallas for constructing sewer system, including 6-inch, 8-inch, 10-inch and 12-inch pipe and disposal plant with 150,000 gallons daily capacity; Benjamin A. Dickerson, engineers, Cuero. (Recently noted.)

Tex., Fort Worth.—City will construct sewer on 13th St. from 9th and Jones Sts. to 13th and Throckmorton Sts., estimated to cost \$18,000, and Houston drainage, 10th to Weatherford St., estimated cost \$5500; Mayor and Board of Commissioners receive bids until November 1; J. J. Von Zuben, Acting City Engineer. (See "Machinery Wanted.")

Tex., Hallettsville.—City awarded contract to W. D. Faus to construct cement storm sewer on south side of public square.

Tex., Houston.—City Council adopted plans and specifications and authorized H. B. Rice, Mayor, to advertise for bids for construction of sanitary sewers in First and Sixth wards.

Tex., Temple.—City votes November 5 on \$75,000 bond issue, \$50,000 of which will be

used for purchase of Temple Sanitary Sewer Co.'s sewer system and \$25,000 for extension and improvement. Address The Mayor. (Recently mentioned.)

Tex., Waco.—City, J. H. Mackey, Mayor, will construct Mary St. reinforced concrete storm sewer; about 3965 linear feet; specifications, etc., ready after October 26 at office of Geo. E. Byars, City Engineer; bids opened 10 A. M. November 12; P. A. Gorman, Commissioner Streets, Sewers and Public Improvements; bonds previously noted. (See "Machinery Wanted.")

Tex., Wichita Falls.—City will vote November 5 on bond issue of \$22,000 for sewers and street improvements. Address The Mayor.

Va., Appalachia.—Town will construct sewer system. Address Town Clerk.

## TELEPHONE SYSTEMS

Ark., Little Rock.—Southwestern Telegraph & Telephone Co. receives bids until October 24 at office of division plant superintendent's office, 7th and Louisiana Sts., Little Rock, for enlargement and remodeling building; bids to include plumbing, heating and wiring; certified check, \$300; bids to state time of completing building.

Fla., Armstrong.—Mr. Brown of F. L. Brown & Son of Hastings, Fla., and associates will construct telephone system for Armstrong-Elkton farming district.

La., Coe.—Prairie Hayes Telephone Co., capital stock \$5000, incorporated; Sam McManus, president; J. W. Young, vice-president; Paul Stagg, secretary-treasurer.

Miss., Biloxi.—C. D. Smith will construct telephone line, 30 miles, in direction of Woolmarket and connect with Cumberland Telephone & Telegraph Co., main office Nashville, Tenn.

Okla., Watova.—Watova Telephone Co., capital stock \$3000, incorporated by W. A. Munson, W. J. Taylor and A. D. Young of Lawton, Okla.

Tex., Clarksville.—Clarksville Telephone Co. organized; will acquire telephone system of Texarkana Telephone Co. of Texarkana, Tex.

Va., Brandon.—Brandon Telephone Exchange incorporated; J. T. Deal, president, Norfolk; R. C. Harrison, Savannah, Ga.; F. Otway Byrd, secretary and treasurer, Brandon; capital \$5000.

Va., Hillsville.—Reed Island Mutual Telephone Co. purchased system of Hillsville Telephone Co., in Carroll and several adjacent counties; purchaser plans to extend and improve system and add metallic line between Pulaski and Hillsville.

## TEXTILE MILLS

Ga., Hartwell.—Sheeting.—Hartwell Mills will, it is reported, double equipment and has ordered portion of new machinery; present equipment, 8000 spindles, 200 broad looms, etc.

Ga., Rome.—Hosiery.—Cherokee Hosiery Mills Co., capital stock \$60,000, chartered by John M. Berry, J. H. O'Neill, J. B. Sullivan and others; recently reported to be organized to continue Cherokee Hosiery Mills; increase daily capacity from 600 to 1000 dozen pairs.

Ga., Trion.—Cotton Cloth.—Trion Co. engaged J. E. Sirrine, Greenville, S. C., as engineer-architect to plan mill and village improvements recently announced; company acquired Trion Manufacturing Co. and recently wired Manufacturers Record it will expend \$100,000 for village improvements and \$300,000 for new machinery, etc.

N. C., Rocky Mount.—Cotton Yarns.—Rocky Mount Mills will install auxiliary power plant; awarded contract to B. Parks Rucker, Charlotte, N. C.; equipment to include four 250-horse-power water-tube boilers, 500-kilowatt turbine, condenser, electric motors, etc., which have been ordered.

Tex., McKinney.—Cheviots.—Texas Cotton Mill Co. awarded contract to Jones & Cooper, McKinney, to build addition; weave shed extension 113 feet by 105 feet 8 inches, one story and basement, constructed of concrete, wood and glass; extension to two-story portion of mill 61 feet 8 inches by 191 feet 4 inches, of concrete and brick; these additions follow original plan of mill; will add 5000 spindles, 160 looms, etc., all contracted for; will add low-pressure side to engine, not contracted for. (Previously partly reported.)

## WATER-POWER DEVELOPMENTS

Miss., Laurel.—Louisiana Interstate Mineral Co., C. F. Peterson, president, Hotel Monteleone, New Orleans, La., contemplates

construction of hydro-electric plant developing 10,000 horse-power. (See "Mining.")

S. C., Storeville, R. F. D. from Iva.—J. I. Jackson will build dam at mill.

Tenn., Limestone.—J. F. Arnold of Limestone, Victor M. Weaver, James L. Stewart, Noah T. Halsey and Samuel K. Varnes, each of Harrisburg, Pa., incorporated Chucky River Hydro-Electric Co. with \$25,000 capital stock to construct hydro-electric plant on Nolachucky River.

Va., Buena Vista.—Clifton Forge Public Service Corporation, Clifton Forge, Va., has changed name to Virginia-Western Electric Co.; W. G. Matthews, president; A. C. Ford, secretary-treasurer; both of Clifton Forge; as recently stated, company acquired Rock-bridge Power Corporation and Buena Vista Light & Power Co., owning two hydro-electric plants on North River and supplying light and power to Lexington and Buena Vista; completed surveys and detailed plans for proposed hydro-electric development; no active construction work contemplated before next spring; transmission line from Clifton Forge to Covington, Va., completed and power being supplied to Covington Electric Co.; Francis B. Weller, engineer, Hibbs Bldg., Washington, D. C.

Va., Saltville.—Appalachian Power Co., Bluefield, W. Va., awarded contract to C. W. Hancock & Sons, Lynchburg, Va., to construct 1500-kilowatt step-down transformer station; cost \$15,000. (Recently noted under Bluefield, W. Va.)

W. Va., Charleston.—Wilbur Tusch, secretary Virginian Power Co., 149 Broadway, New York, writes to Manufacturers Record: "Virginian Power Co. organized for acquiring lands, water rights, etc., owned or controlled by West Virginian Power Co., Dominion Power Co. of West Virginia and Dominion Power Co. of Virginia, and for acquisition of other public utilities in West Virginia; has commenced construction of auxiliary steam-power station on Great Kanawha River at Cabin Creek, 12 miles southeast of Charleston; capacity 15,000 kilowatts, and located principally at several mines at Cabin Creek Junction, from which company can purchase coal for plant. Plans provide for erection of about 200 miles transmission lines penetrating Kanawha and New River district coal field; estimated power requirements of mines located in district, in excess of 100,000 horse-power. Company also owns four water-power sites on New River, as follows: Bull Shoal, drainage area, 4129 square miles, 100,000 kilowatts available power; Bluestone, 4400 square miles, 125,000 kilowatts; Richmond Falls, 5900 square miles, 15,000 kilowatts; Gauley Junction, 6250 square miles, 30,000 kilowatts; has commenced construction of dam at Bull Shoal, plans providing for dam 125 feet in height with crest length of approximately 1400 feet; through erection of this dam water will be backed up about 28 miles. Capitalization of company: Common stock authorized, \$5,000,000; preferred stock authorized, \$5,000,000; first and collateral trust mortgage bonds authorized, \$15,000,000." Charles O. Lenz, 71 Broadway, New York, is chief engineer. (Virginian Power Co. recently reported chartered, etc.)

## WATER-WORKS

Ark., Booneville.—City contemplates constructing water-works. Address The Mayor.

Ark., Arkansas City.—City is planning extension to water-works recently noted; Frank Ramus, Mayor. (See "Machinery Wanted.")

D. C., Washington.—District Commissioners approved plans by W. A. McFarland, Superintendent of Water, for extension of water system to Good Hope and all high ground east of Anacostia River; planned to erect pumping station at 18th St. and Minnesota Ave. S. E., and water towers, with capacity of 100,000 gallons each, at Good Hope, Congress Heights and 30th and R Sts. S. E.; site for pumping station will cost \$6000, building \$12,000 and pumps and equipment \$10,000; extension of pipe service will cost \$12,000.

Fla., Gainesville.—City is having plans and specifications prepared for water-works extension; J. E. Waugh, City Clerk. (Recently noted.)

Fla., Mulberry.—City contemplates purchasing present water-works; cost \$25,000; E. H. Dudley, Acting Mayor. (Recently noted as to vote October 22 on bond issue for water-works and sewer system.)

Fla., Fort Lauderdale.—City awarded contract to Isaac C. Michler at \$28,558 to construct water-works and sewer systems; water-works will include tank and tower of 75,000 gallons capacity, machinery-house and engine; plans by Southern States Engineer-

ing Co.; William H. Marshall, Mayor. (Recently noted.)

Ga., Augusta.—City will erect building at site of present filter plant in Sixth ward; brick structure; 35x60 feet; tin roof; bids addressed to City Council will be received by Waterworks Committee until 4 P. M. October 31; cash or certified check for \$100; Nisbet Wingfield, city engineer and commissioner public works.

Ga., Byronville.—City (recently noted voting \$4000 for water-works improvements) will install 50,000-gallon steel tank on 60-foot steel tower; belt-driven 62-gallon-per-minute triplex pump, 2½-inch suction, 2-inch discharge; 1500 feet 8-inch and 1000 feet 6-inch cast pipe; nine fire hydrants; three 8-inch, one 6-inch and four 1½-inch gate valves and boxes; 4200 feet 1½-inch galvanized pipe; W. H. Byrom, president, Byrom corporation.

Ga., Waycross.—City will expend \$30,000 for improvements to water-works and sewers; work includes extension of water mains with valves and hydrants, two miles of sanitary sewers, probably constructing reservoir, drilling two wells, installing boiler and meters; B. H. Klyce, City Engineer. (Recently noted as receiving bids until November 5 for drilling artesian well.)

Ky., Covington.—City Commissioners contemplate \$60,000 bond issue for cleaning and lining with concrete water basins and installing swing joint pipe.

Ky., Lancaster.—City Council awarded following contracts for improvements to water-works: Chicago Bridge & Iron Co. of Chicago, Ill., at \$5110 to erect 100,000-gallon steel tank on tower 140 feet high to platform; Greer Filter Co. of Pittsburgh, Pa., at \$2250 to install mechanical sand filter with daily capacity of 60,000 gallons; and to J. A. Moynahan of Richmond, Ky., at \$3000 to build addition to dam; Charles M. Crawford, Jr., engineer, 14 Lexington Bank & Trust Co. Bldg., Lexington, Ky. (Call for bids lately noted.)

La., Donaldsonville.—Municipal Light and Water Commission has \$40,000 available for installation of Diesel engines and other machinery in water and light plant; plans include erection of building with brick walls and concrete floors.

La., Vivian.—City retained W. Grant, consulting engineer, to prepare plans and specifications for water-works and sewer system; estimated cost \$40,000; R. B. Baker, Mayor.

Md., Baltimore.—Board of Awards receives bids until November 6 for construction of two filtered water reservoirs at Lake Montebello; earth excavation 55,700 cubic yards; earth embankment 52,400 cubic yards; concrete 11,800 cubic yards; steel reinforcement 91,000 pounds; Ezra B. Whitman, president Water Board; recently mentioned. (See "Machinery Wanted.")

Miss., Greenwood.—City will install condensing pumping engine to have capacity of 3,000,000 gallons every 24 hours, with water pressure of 125 pounds; cost \$7500; contract awarded.

N. C., Salisbury.—City is having surveys made from Salisbury to north fork of Yadkin River with view to ascertaining cost of securing water supply from river. Address The Mayor.

Okla., Oklahoma City.—City will issue \$2200 of bonds for extension of water-works; Whit M. Grant, Mayor.

Tex., Corpus Christi.—City engaged Alexander Potter of New York to prepare plans, reports and estimates of cost for securing city water supply.

Tex., Galveston.—Government awarded contract to Howe Construction Co., Port Arthur, Tex., at \$6250 to lay 4-inch cast-iron water main at United States Quarantine Station.

Tex., Polytechnic.—Town contemplates \$15,000 bond issue for water-works. Walton Petet, Ocie Speer and others appointed committee.

Va., Appalachia.—Town Council granted franchise to Clear Creek Water Co. to construct water-works; plans call for pressure of 40 pounds at highest point.

W. Va., Welch.—Appalachian Power Co., Bluefield, W. Va., awarded contract to C. W. Hancock & Sons, Lynchburg, Va., to construct reservoir and substation; cost \$20,000. (Recently noted under Bluefield.)

### WOODWORKING PLANTS

Ark., Blytheville.—Furniture.—Eagle Furniture Co., capital stock \$10,000, incorporated; J. T. Newberry, president; A. J. Doris, vice-president; C. E. Brown, secretary-treasurer.

Ark., Newport — Veneer, etc.—Kalamazoo (Mich.) capitalists have, it is reported, pur-

chased plant of American Panel & Lumber Co. and will improve and operate; propose to manufacture veneer from elm, walnut and gum and baskets from sycamore; also plan to ultimately establish factory for manufacture of pulp from tupelo gum.

Ark., Pine Bluff.—Collapsible Crates.—C. R. Pugh and F. Sason (both connected with Reap-Crawford Furniture Co.) will establish plant to manufacture collapsible crates.

Ark., Malvern.—Sashes, Doors, etc.—Memphis Sash & Door Co., Memphis, Tenn., purchased plant of Rockwell Screen Door Co.; will install machinery and manufacture sashes, doors, screens, etc.

Ark., Wheelley.—Spokes.—Wheelley Spoke Co., George F. Weis, manager and proprietor, will rebuild mill shed reported burned; machinery purchased; no bids asked.

Fla., Williston.—Crates, etc.—Truckers' Manufacturing Co., capital stock \$10,000, incorporated; A. M. Smith, president.

Ky., Campbellsville.—Spokes and Rims.—J. Allen Russell is promoting establishment of spoke and rim factory; main building 25x60 feet; daily capacity, 12,000 spokes.

Md., Baltimore.—Cigar Boxes.—K. Hendricks' Sons, 201 W. Conway St., awarded contract to Henry Pierson & Sons, 1000 Olive St., Baltimore, to erect \$4000 four-story mill-construction (additional) building for manufacture of cigar boxes; install machinery.

N. C., Greensboro.—Furniture.—Sterling Furniture Co. purchased Gate City Furniture Co.'s plant and will continue operations; M. W. Thompson, president; J. A. Kellenberger, secretary. (Recently noted incorporated with \$50,000 capital stock.)

N. C., North Wilkesboro.—John R. Myers of Thomasville, N. C., contemplates establishing chair factory.

Tenn., Jackson.—Veneer.—Jackson Lumber Co. will probably rebuild veneer plant recently reported burned.

Tenn., Nashville.—Oak Flooring.—Nashville Hardwood Flooring Co. awarded contract to Standard Dry Kiln Co., Indianapolis, Ind., to build two dry kilns. (Recently noted as to increase dry kiln capacity from 700,000 to 900,000 feet of oak flooring.)

Tex., Sherman Millwork.—Landrum & Pennington will erect building at Montgomery and Jones Sts. to be equipped for manufacturing window and door frames, etc.

### BURNED

Ark., Hoxie.—The Boas-Gibson Hotel; loss \$25,000.

Ark., Marvell.—Marvell Pharmacy owned by Brassfield & Bell; Mr. Martin's store, owned by E. P. Mollitor of Helena, Ark., and building owned by Mrs. Whit Wall.

Ark., Parkin.—Lancing Wheelbarrow Co.'s box factory; loss \$30,000.

Ark., Texarkana.—Gulf Cooperage Co.'s drykiln; estimated loss \$30,000.

Ark., Wheelley.—Wheelley Spoke Co.'s mill, dryhouse and warehouse; loss \$6000 to \$8000; building owned by Mrs. M. Goldberg of Memphis, Tenn.

Fla., Ellenton.—Atlantic Refining Co.'s fuller's earth refinery, including drying sheds and machine shop; loss \$100,000; J. R. Etter, local manager; report states company controlled by Standard Oil Co., 26 Broadway, New York.

Fla., Garniers.—I. F. Eldredge's residence at Camp Pinchot.

Ga., Funston.—Whitehead & Stokes' cotton gin.

Ky., Cobb.—Dudley Canady's residence; loss several thousand dollars.

Ky., Calcut.—Miss Nannie Ballard's residence; loss \$6000.

Ky., Louisville.—Lampton, Crane & Ramey Company's paint factory damaged; estimated loss \$30,000.

Ky., Owensboro.—Ohio Valley Manufacturing Co.'s plant damaged; loss on building and machinery, \$29,000.

Ky., Versailles.—Theodore Kessler's bakery.

La., Monroe.—Charles Schultz's bakery; loss \$1750.

La., New Orleans.—James Lemare's residence at 2925 Lapage St.; loss \$12,000.

La., Plaquemine.—Oull S. Aymond's sawmill on Upper Bayou Jacque.

La., Shreveport.—Residences of Mr. Carroway, T. M. Hall, W. O'Bannon and Mrs. Jack Converse in West Shreveport; loss \$10,000.

Miss., Decatur.—Buildings of R. H. Day Company, loss \$5000; F. N. McMullan & Co., loss \$8000; Bank of Decatur, loss \$3000; Newton County Times, loss \$1500.

Mo., Eldon.—Buildings occupied by S. P. Henker, Kate Swanson, H. S. Kilgroe,

Halfbrick Harness Co., Ivy Nance and others; loss about \$40,000.

Okla., Homestead.—Smith Mercantile Co.'s store; loss \$11,000.

Mo., Martin City.—George Young's butcher shop, Michael Decker's garage, Stephen Estes' barber shop, Knoche Hotel, Carr & Knoche's store; loss \$20,000.

Okla., Pawhuska.—A. W. Lefebvre, general manager Midland Valley Railroad Co., Muskogee, Okla., states company's fire loss was small frame engine-house; not roundhouse and repair shop, as recently reported.

S. C., Latta.—L. B. Roger's dwelling; loss \$6000.

Tenn., Clayton.—Barnes & Roberts' store.

Tenn., Dowlitown.—Dowlitown Woolen Mill damaged by explosion of boiler; engine, boiler, portion of building, etc., destroyed; loss \$2500 to \$3000.

Tenn., Mason.—C. T. McCrow & Co.'s cotton gin; estimated loss, \$4500.

Tex., Abilene.—H. B. Smith's cotton gin at North 4th and Walnut Sts.; loss \$3000.

Tex., Ballinger.—C. H. Allison's residence; loss \$4000.

Tex., Beeville.—J. C. Beasley's building, occupied by George Faupel, Ed C. Fobie and others; loss \$25,000 to \$30,000.

Tex., Corpus Christi.—San Antonio & Aransas Pass Railway's passenger depot and sheds; loss \$10,000.

Tex., Cross Plains.—R. F. Bennett's residence; loss \$3000.

Tex., Dallas.—R. D. Logsdon's store and dwelling at 109 and 113 N. Carroll Ave.; loss on buildings about \$3000.

Tex., High.—High Gin Co.'s plant.

Tex., Houston.—Pete Kessler's residence at Center and Sanburn Sts.; loss \$3000.

Tex., Mertzon.—Depot of Kansas City, Mex-

ico & Orient Railway Co. of Texas; C. E. Johnston, chief engineer, Kansas City, Mo.; loss \$4000.

Tex., Paris.—High Gin Co.'s plant; loss about \$15,000.

Tex., San Angelo.—Gulf, Colorado & Santa Fe Railway's roundhouse; loss on building about \$2000; F. Merritt, chief engineer, Galveston, Tex.

Tex., San Marcos.—San Marcos Printing Co.'s plant.

Tex., San Marcos.—Z. Williamson & Son's building; S. S. Coy's building.

Tex., Stanton.—James Coleman's residence; loss \$4000.

Tex., Timpson.—Timpson Handie Co.'s plant; loss \$10,000.

Tex., Weldon.—Weldon Gin and Grist Mill; estimated loss \$7000.

Tex., Temple.—Kos M. Anderson's bungalow; T. T. Gay's residence; loss \$6000.

Va., Alexandria.—Alexandria Glass Works' paper storehouse and two stock sheds; loss about \$4000.

Va., Big Island.—R. G. Turpin's residence.

Va., Lynchburg.—Armour & Co.'s plant, estimated total loss \$40,000; L. A. Wallace, local manager; main office Chicago, Ill.

Va., Fishers Hill.—H. W. Miller, assistant to the president, Southern Railway Co., 621 Equitable Bldg., Atlanta, Ga., states company's station was not burned as recently reported.

W. Va., North Mountain.—Avery Bros.' cooperage; estimated loss \$1000.

### WRECKED BY EXPLOSION

Tex., Marshall.—Merzbacher-Kelly's drug store; Marcus-Kariel clothing store; H. R. Stephen's barber shop; loss about \$50,000

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ala., Birmingham.—McDavid, Meyer, Goldman & Terry acquired site on Highland Ave. near Iroquois St. to erect apartment-house; company wires Manufacturers Record: "Apartment-house will cost approximately \$175,000; construction probably reinforced concrete; fireproof with tile finish; architect not selected; three stories; foundation covering half acre."

D. C., Washington.—Edward W. Donn, architect, 1708 16th St. N. W., will repair apartment-house at 607 and 609 O St. N. W.; cost \$7000.

Fla., St. Petersburg.—Brown & Cooper will erect store, office and apartment building. (See "Stores.")

Ga., Atlanta.—Joseph Gatins purchased lot and residence at 468 Peachtree St. and is having plans prepared by W. L. Stoddart, 39 W. 35th St., New York, to erect apartment-house addition; Mr. Stoddart wires Manufacturers Record: "Building to be constructed at rear of residence; 50x80 feet; five stories; 60 rooms and baths; approximate cost, \$75,000; fireproof concrete or steel construction."

Mo., Kansas City.—Reinhardt Phillips will erect brick apartment-house at 2014 Benton St.; cost \$3000.

Mo., Kansas City.—Berkowitz Construction Co. will erect three brick flats at 1410 to 1420 E. 30th St.; cost \$7000 each.

Mo., St. Louis.—V. E. Rhodes will erect apartment-house at 6164 Berlin St.; three stories; plans by Henry Schaumburg; cost \$15,000.

Mo., St. Louis.—F. J. Cornwell & Sons, builders, are having plans prepared for two three-story apartment-houses at Nina Pl. and McPherson Ave.; six suites of four and five rooms each; reception halls, baths, sleeping porches and sun parlors; cost about \$65,000.

Mo., St. Louis.—Lewis Realty & Building Co. will erect two apartment-houses at 4772-76 Ashland St.; two stories; cost \$6000.

Mo., St. Louis.—J. M. Swallow will erect two-story tenement-house at 2006 Allen St.; cost \$3000.

Mo., St. Louis.—Samuel B. Martz will erect six-family apartment-house on Berlin Ave. between Rosedale Ave. and Skinker Rd.

Mo., St. Louis.—Richard Mederacks, 4430 Arsenal St., will expend \$20,000 to erect apartment-house; 45x53 feet; fireproof construction; steam heat; gravel roof; plans

and construction by owner. (Recently noted.)

Mo., St. Louis.—Lindell Fair Grounds, Realty & Investment Co. purchased site 96x 162 feet on Kussuth Ave. between Fair and Harris Aves., and will erect residences and apartments.

Mo., St. Louis.—Mutual Building Investment Co. will erect two-story tenement-house at 3255 55A California St.; cost \$4000.

Mo., St. Louis.—Frank W. Gruendel will erect two-story tenement-house at 4042 and 4044 Palm St.; cost \$5000.

Mo., St. Louis.—Meyer-Francis Realty & Building Co. incorporated with \$25,000 capital stock by R. A. McDermott, A. J. Francis, A. G. Busch and others; will acquire site 920 feet on Waterman Ave. and erect apartment buildings.

Mo., St. Louis.—F. W. Koenig will erect two-story tenement-house at 3517 Connecticut St.; cost \$5000.

Mo., St. Louis.—Caesar D. Mario and Caesar Oldani will erect apartments, etc. (See "Stores.")

Mo., St. Louis.—Mrs. H. Griffin will erect two-story tenement-house at 4028 Natural Bridge; cost \$4500.

Mo., St. Louis.—Herman Ludwig will erect double flat building on Ohio Ave.

Tex., Houston.—John Sherman has plans by Jones & Tabor, Binz Bldg., Houston, for apartment building; two stories; 52x81 feet; pressed brick and stone trimmings; contract let October 24.

Va., Richmond.—William Catlin has plans by Shepherd & Penle for apartment-house on Park Ave.; W. A. Chesterman is lowest bidder.

Va., Richmond.—Mrs. Lawrence Seyle has plans by Carneal & Johnson, Richmond, for apartment-house on Monument Ave.; contract to be awarded soon. (Previously noted.)

#### ASSOCIATION AND FRATERNAL

Tenn., Springcreek.—Ancient Free and Accepted Masons will, it is reported, erect lodge building; two stories; frame.

Tex., Paris.—Elks' Building Association, T. G. Henley, secretary-treasurer, rejected bids to erect two-story brick lodge building; will revise plans and invite new bids. (Lately noted.)

Tex., Rosebud.—Ancient Free and Accepted Masons, it is reported, will receive bids until October 25 to erect two-story brick Masonic Temple.



Tex., Corpus Christi.—Knights of Pythias will erect castle on N. Broadway.

### BANK AND OFFICE

Ark., Batesville.—St. Louis, Iron Mountain & Southern Railway, J. R. Stephens, chief engineer, St. Louis, Mo., will erect station and office building. (See "Railway Stations, Sheds, etc.")

Fla., Lakeland.—D. B. Dickson will erect office and store building; plans not determined. (See "Stores.")

Fla., St. Augustine.—St. Johns County Abstract Co. will erect building; fixtures have been supplied.

Fla., St. Petersburg.—Brown & Cooper will erect store, office and apartment building. (See "Stores.")

Fla., St. Petersburg.—A. C. Odom and C. C. Odom, Jr., will erect store and office building. (See "Stores.")

La., New Orleans.—Sam B. Hollander will erect office building. (See "Stores.")

Md., Elkton.—Elkton Banking & Trust Co. will erect office building.

Mo., Columbia.—R. B. Price will erect bank building for Boone County National Bank at 8th St. and Broadway.

N. C., Whitney.—Southern Aluminum Co. has plans by Hook & Rogers, Charlotte, N. C., for office building; three stories; ordinary construction; steam heat; electric lighting; fireproof vault; contract let October 24; reported cost about \$100,000. (Recently noted.)

S. C., Laurens.—Bank of Laurens will open bids within two weeks to erect bank and office building; 26x117 feet; ordinary construction; low-pressure steam heat; plans by George E. Lafaye, Columbia. (Recently noted.)

Tenn., Memphis.—Parham & Well have plans by George F. Weller, Memphis, for bank and office building; 21x75 feet; two stories and basement; ordinary construction; brick and tile; steam heat; prism sidewalk lights; composition roof; cost \$15,000; date of opening bids not determined. (E. E. Parham Trust Co. recently noted to erect building.)

Tex., Beaumont.—New Orleans Realty Co. has plans by H. C. Mauer & Co. to erect building; two stories; brick and concrete; to have carrying capacity for four stories; composition roof; cost \$23,000; let contract November 15.

Tex., Dallas.—Guaranty Building Co. incorporated with \$100,000 capital stock by Harry L. Seay, Walter F. Seay and H. B. Seay; reported as to erect office building.

Tex., Denison.—Bids received by National Bank of Denison, R. S. Legate, president, until October 24 to remodel building at 230 W. Main St.; plans and specifications by R. T. Forsyth on file at bank.

Tex., Longview.—J. C. Lacy will erect bank and office building on Main St.; two stories; brick; first floor for bank; second floor for offices.

Tex., San Antonio.—Chamber of Commerce has tentative plans by Atlee B. Ayres for proposed office building. (Lately noted.)

Va., Richmond.—Commonwealth Bank, W. L. Walters, president, has plans by A. C. Blossom, 366 Fifth Ave., New York, and will soon invite bids for bank building at 10th and Main Sts.; 15 stories; concrete and steel; reported cost about \$1,000,000. (Previously noted.)

W. Va., Princeton.—People's Bank will erect office and bank building at 3d and Mercer Sts.; three stories; brick.

### CHURCHES

Ala., Birmingham.—Pisgah Home Association, Robert M. Jenkins, president, has plans to erect chapel and homes for men and women at Ave. G and 10th St.; buildings will be erected to form triangle.

Ark., Pine Bluff.—First Presbyterian Church will erect Bible-house adjoining present edifice; 80x40 feet; brick; probably slate roof; cost \$9000; bids opened September, 1913. Address J. I. Norris, 203 W. Sixth Ave., Pine Bluff.

Fla., Fort Lauderdale.—Methodist church, Rev. Mr. Rader, pastor, will erect edifice.

Fla., Orlando.—Presbyterian Church will enlarge edifice, increasing same from 3 to 14 rooms. Address The Pastor, Presbyterian Church.

Ky., Lancaster.—Christian Church will enlarge edifice to include accommodations for

school, prayer and social meetings. Address The Pastor, Christian Church.

Ky., West Point.—St. Denis Catholic Church, Rev. R. C. Ruff, pastor, will erect edifice.

La., Lake Charles.—Bids received until December 3 to erect brick edifice and presbytery for Church of Immaculate Conception; plans and specifications may be seen at Rev. H. Cramer's residence and at office of Favrot & Livaudais, architects, 839 Gravier St., New Orleans, La.

Md., Baltimore.—Lutheran Church of Reformation, Rev. W. E. Brown, pastor, has plans by J. E. Laferty, 11 E. Pleasant St., Baltimore, to erect church on present site at Caroline and Lanvale Sts.; Saxon style architecture; separate classrooms; seating capacity 700; cost \$60,000. (Previously noted.)

Miss., Laine.—Rev. John Chipman, pastor Episcopal Church, Pascagoula, Miss., is interested in erecting church.

Mo., Pittsburgh.—First Methodist Church building committee, J. Luther Taylor, 505 Euclid Ave., chairman, is having plans prepared for church; cost \$50,000.

N. C., Wilmington.—Trustees of Southside Baptist Church will open bids December 15 to erect edifice; seating capacity 600; brick; hot-air heat; electric lighting; slate roof; cost \$30,000; plans by J. M. McMichael, Charlotte, N. C.; W. G. Hall is pastor. (Recently noted.)

Tex., Dallas.—First Unitarian Church will erect edifice. Address The Pastor, First Unitarian Church.

Tex., Bishop.—Methodist Church will erect edifice at 5th St. and Fifth Ave.; brick veneer; separate Sunday-school room and main auditorium with seating capacity of 350; cost \$8000. Address The Pastor, Methodist Church. (Recently noted.)

Tex., Bishop.—Baptist Church will erect edifice; cost about \$10,000. Address The Pastor, Baptist Church.

### CITY AND COUNTY

Ala., Birmingham.—Fire Station.—City Commissioners plan to erect fire station at Tenth Ave. and 48th St., East Birmingham.

Ark., Clinton.—Jail, etc.—Commissioners of Public Buildings will receive bids until October 29 to erect courthouse and jail. (See "Courthouses.")

Fla., Plant City.—City Hall.—City will vote November 2 on \$3000 city hall improvement bonds. Address The Mayor. (Previously noted.)

Fla., Tampa.—Library.—City will vote October 29 to decide upon acceptance or rejection of \$50,000 gift for erection of Carnegie Library.

Ky., McKee.—Jail.—Jail Commissioners for Jackson County receive bids until November 25 to erect jail; plans and specifications by Pauly Jail Building Co., St. Louis, Mo., are on file in County Judge's office in McKee, and copy will be furnished to bidders on certified check for \$10, payable to J. W. Mullins, chairman of jail committee, to whom bids should be addressed; certified check for \$1000.

Ky., Richmond.—Barn.—J. G. Baxter, Supervisor of Roads of Madison County, will receive bids until October 28 to erect barn on quarry property on B St.; plans on file at office of Judge W. R. Shackelford.

Tex., Calvert.—City Hall.—City will erect city hall; 40x60 feet; two stories; brick; heating not determined; electric lighting; cost \$10,000; architect not selected. (Recently noted.)

Tex., Dallas.—Tubercular Hospital.—City and Dallas County Commissioners rejected bids to erect tubercular hospital; plans revised by Jerome G. Harrison, 523 Wilson Bldg., Dallas, and new bids invited to be opened about October 25. (Previously noted.)

### COURTHOUSES

Ark., Clinton.—Van Buren County Commissioners will let contract October 30 to erect courthouse; 68x72 feet; ordinary construction; hot-water heat; gas lighting; composition and slate roof; cost \$50,000; plans by Frank W. Gibb & Co., Little Rock, Ark. (Recently noted.)

Miss., Meadville.—Franklin County Supervisors contemplate issuing bonds to erect courthouse; correspondence with architects relative to plans, etc., desired; A. R. Moore, Chancery Clerk.

Miss., Philadelphia.—Neeshoba County Commissioners plan to erect \$50,000 courthouse.

Okla., Guymon.—Texas county will vote November 5 on \$30,000 bond issue to erect courthouse. Address County Commissioners.

S. C., Yorkville.—York county will vote November 5 on \$75,000 bond issue for courthouse. Address County Commissioners.

Tex., Goldthwaite Mills.—County Commissioners will receive bids addressed to S. H. Allen, County Judge, on blank forms obtainable from Judge Allen, until October 28 to erect three-story-and-basement fireproof courthouse; heating, plumbing and wiring separate contract; plans and specifications at office of Judge Allen at Goldthwaite, and Henry T. Phelps, Jr., architect, 707-709 Gunter Bldg., San Antonio, Tex., or may be had on deposit of \$25. (Recently noted.)

### DWELLINGS

Ala., Birmingham.—J. G. Whitfield will erect residence at 1717 Fourth Ave.; one story; frame; cost \$3900.

Ala., Birmingham.—C. M. Street will erect three dwellings at 29th St. and Eleventh Ave.; two stories; frame; cost \$6000; also two two-story frame dwellings on Juniper Ave.; cost \$3200.

Ala., Birmingham.—R. A. Davis will erect residence at Amy Ave. and Bird St.; one story; frame; cost \$3500.

Ala., Birmingham.—J. S. Denton will erect residence at 12th St. and Seventeenth Ave. South; two stories; frame.

Ala., Montgomery.—Mrs. F. Stollenwerk is having plans prepared by C. Frank Galaher, 425 Bell Bldg., Montgomery, to remodel dwelling; cost \$8000.

Ark., Fort Smith.—D. C. Smith, manager of Draughton's Business College, will erect dwelling; two stories; eight rooms; stucco.

Ark., Little Rock.—Bracy, Beauchamp & Niemeyer Realty Co. will erect residence at 2100 Battery St.; two stories; cost \$5000.

D. C., Washington.—Arthur Carr, 1101 E. St. N. W., will expend \$7000 to erect dwelling; 52x42 feet; ordinary construction; hot-water heat; slate roof; plans and construction by owner.

D. C., Washington.—G. S. Gruver, Union Trust Bldg., will erect six dwellings at 1508 and 1510 39th St., 3934 and 3936 Morrison St. and 3907 and 3909 McKinley St. N. W.; two stories; frame; cost \$5900 each; contract awarded to J. L. Gruver.

D. C., Washington.—H. R. Howenstein, 1314 F St. N. W., will erect three dwellings at 737 to 741 12th St. S. E.; two stories; brick; cost \$6500.

D. C., Washington.—Harry Wardman, 1342 New York Ave. N. W., will erect 10 dwellings from 1921 to 1939 1st St. N. E.; two stories; brick; cost \$20,000; plans by F. R. White & Co., 1342 New York Ave. N. W.; owner builder.

D. C., Washington.—John R. Haislip, 2129 1st St. N. W., will erect dwelling at 1301 Emerson St. N. W.; frame; cost \$6000.

D. C., Washington.—S. F. Talliaferro, 211 Evans Bldg., will erect six dwellings at 2618 to 2628 11th St. N. W.; two stories; cost \$21,000.

D. C., Washington.—G. C. Goodloe, 1103 16th St. N. W., will erect residence at 1734 18th St. N. W.; three stories; cost \$18,000.

D. C., Washington.—John B. Lord, 1254 Lawrence St. N. E., will erect two dwellings at 1233-1235 Newton St.; cost \$8000.

D. C., Washington.—George C. Pumphrey, 311 C St. S. E., will erect three dwellings from 3461 to 3465 Holmead Pl.; three stories; brick; cost \$15,000.

Fla., Homestead.—H. W. Johnston of Lebanon, Ky., will erect bungalow; two stories; cost \$5000.

Fla., Jacksonville.—Brown Realty Co. will erect two nine-room dwellings; frame; ordinary construction; metal-shingle roof; cost \$4000 each; plans and construction by owner.

Fla., Mulberry.—C. C. Martin has plans by Bonfoey & Elliott, Tampa, for dwelling; frame; cost \$5500.

Fla., Pensacola.—G. Maher has plans by Alfred & Alfred of Pensacola for dwelling; 30x50 feet; frame construction; day labor.

Fla., Pensacola.—David Edrehi has plans by Alfred & Alfred of Pensacola to remodel dwelling; 30x50 feet; frame construction; contract will soon be let.

Fla., Punta Gorda.—J. Hurton will erect residence on Cross St.; two stories; concrete and stucco.

Fla., St. Petersburg.—Charles Weyman will erect residence at 6th St. and Fourth Ave.

Fla., St. Petersburg.—George W. Lines will erect residence in Robinson court; eight rooms.

Fla., St. Petersburg.—N. M. Goodrich will erect bungalow at 4th St. and Seventh Ave.; five rooms.

Fla., St. Petersburg.—C. S. Crook will erect six-room residence on Fourth Ave. between 2d and 3d Sts.; cost \$3200.

Fla., Tampa.—W. B. Franklyn has plans by Bonfoey & Elliott, Tampa, for dwelling; brick veneer; cost \$6500.

Fla., Tampa.—P. M. Winton has plans by Bonfoey & Elliott for dwelling; hollow tile and stucco; cost \$8000.

Fla., Tarpon Springs.—J. F. Groene will erect residence and establish poultry farm.

Ga., Atlanta.—A. C. Woolley, Courtland St. and Murritts Ave., purchased lot 150x400 feet and is reported as to erect two dwellings.

Ga., Savannah.—C. Ohsiek, 635 Oglethorpe Ave. E., will erect dwelling 28x46 feet; two stories; frame; gas and electric lighting; tin roof; cost \$3200; plans by J. Stahmer, Savannah; day labor.

Ky., Calcutt.—Miss Nannie Ballard will rebuild residence reported burned at loss of \$6000; to be occupied by Mr. Eubanks.

Ky., Louisville.—G. W. Grant will erect bungalow at 129 N. Peterson Ave.; frame; cost \$3000.

Ky., Louisville.—C. R. Shrader will erect three cottages at 2613-17 Grayson St.; total cost \$3000.

Ky., Louisville.—Clara Alberts will erect three frame dwellings at 133, 149 and 153 N. Galt Ave.; cost \$4000 each.

Ky., Louisville.—M. L. Murphy will erect two-story frame dwelling at 811 S. 7th St.; cost \$3000.

La., New Orleans.—Mrs. B. Sintes will erect frame dwelling; cost \$4385.

La., New Orleans.—A. T. Felt will erect single frame residence on Sycamore St.; cost \$3400.

La., New Orleans.—George Conlon will erect double cottage on Palmyra St.; cost \$3000.

La., New Orleans.—J. J. Sawyer will erect bungalow on Leda St. near Marie St.

Md., Baltimore.—John F. Carter, Pimlico Blvd. near Glenn Ave., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for three dwellings 14x42 feet and store and dwelling 24x42 feet; two stories; slag roofs; hot-air heat; cost \$5000; construction by owner.

Md., Baltimore.—Harry Johnson, 3237 Pimlico Blvd., will erect five two-story dwellings on Singer Ave. near Park Heights Ave.; brick; cost \$2500 each; 24x36 feet; slate roof; steam heat; hardwood finish and floors; combination gas and electric fixtures; tile bathrooms; plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore.

Md., Baltimore.—G. H. Davidson, 2405 Presbury St., will erect residence at Hill Top Park.

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., has plans by H. J. Tinley, 312 N. Charles St., Baltimore, for dwelling on west side of Garrison Ave. south of Piedmont Ave.; frame; 39x32 feet; slate roof; steam heat; cost \$4500; construction by owner.

Md., Cumberland.—William Pullard purchased property in northeastern section of city; will divide into building lots and probably erect row of dwellings later.

Md., Easton.—E. W. Casson will erect residence on Colonial Heights.

Mo., Kansas City.—W. C. Robinson will erect two stone-veneer dwellings at 3700 and 3704 Jefferson St.; cost \$5000.

Mo., Kansas City.—A. E. Briggs will erect frame dwelling at 1409 E. 66th St.; cost \$4000.

Mo., Kansas City.—Swofford Realty Co. will erect three frame dwellings at 5227, 5235 E. 28th St. Ter. and 5220 E. 29th St.; total cost, \$3900.

Mo., Kansas City.—C. E. Ennis will erect brick dwelling at 3616 Holmes St.; cost \$10,000.

Mo., Kansas City.—C. E. Phillips will erect two stucco dwellings at 4315 and 4317 Penn St.; cost \$2900 each.

Mo., Kansas City.—Cowherd Land Co. will erect stucco dwelling at 6024 Walnut St.; cost \$6000.

Mo., Kansas City.—W. C. Hamilton will erect frame dwelling at 7419 Washington St.; cost \$3500.

Mo., Kansas City.—Wells Bros. Realty Co. will erect three brick veneer dwellings in 3800 block Flora St. and frame dwelling at 1510 E. 39th St.; cost \$2500 each.

Mo., Kansas City.—Edwin Bodin will erect

frame dwelling at 3313 E. 36th St.; cost \$3000.  
Mo., St. Louis.—Stanford Investment Co., Alcott and Davison Ave., states company has no buildings in contemplation. (Recently reported as to erect number of cottages.)

Mo., St. Louis.—A. L. Griffith will erect two one-story dwellings at 3218-20 Portis St.; cost \$1000.

Mo., St. Louis.—Ludwig and Adolph Gleiforst will erect residences on Arsenal Ave.; cost \$15,000.

Mo., St. Louis.—Lindell Fair Grounds Realty & Investment Co. will erect residences and apartments on Kussuth Ave. (See "Apartment-houses.")

Mo., St. Louis.—C. S. Bassum will erect dwelling at 1365 McCausland St. and 7016 W. Park St.; two stories; cost \$3000 each.

Mo., St. Louis.—Charles A. Kalbfell will erect 10 cottages on Union Ave. between Tekla and Harney Aves.; total cost, \$20,000.

Mo., St. Louis.—J. H. Williamson will erect residence at 1121 Lawn St.; two stories; cost \$3000.

Mo., St. Louis.—C. E. Roots will erect residence at 7019 W. Park St.; two stories; cost \$3000.

Mo., St. Louis.—Caesar D. Mario and Caesar Oldani will erect cottages, etc. (See "Stores.")

Mo., St. Louis.—Laura Hammer will erect two-story dwelling at 6753 Mitchell St.; cost \$3650.

Mo., St. Louis.—A. U. Hart will erect two one-story dwellings at 4440-42 Lee St.; cost \$4000.

Mo., St. Louis.—Charles J. Moser will erect two one-story dwellings at 4336-44 Pennsylvania Ave.; cost \$4000.

Mo., St. Louis.—S. Wells will expend \$3000 to erect addition to dwelling at 2619-21 Lucas Ave.

Mo., St. Louis.—August Rausendorf will erect three one-story dwellings at 3615-19-21 Virginia St.; cost \$9000.

Mo., St. Louis.—Blanche I. Graham will erect two two-story dwellings at 1111-1137 Lawn St.; cost \$6000.

Mo., St. Louis.—Mrs. W. J. Kelly will erect three-story dwelling at 5359 Waterman St.; cost \$5400.

Mo., St. Louis.—Harry B. White will erect two one-story dwellings at 4404-4406 Wallace St.; total cost \$3300.

N. C., Asheville.—C. G. Memminger is having plans prepared by Bishop & Greer, Valdosta, Ga., for dwelling; brick walls; stone and terra-cotta trimmings; steam heat; gas and electric lighting; 1200 square feet leaded glass windows; copper screens; to have laundry; cost \$30,000; plans complete by November 10.

N. C., Greensboro.—J. A. Odell will open bids about November 1 to erect dwelling; two stories; brick veneer; slate roof; cost \$10,000; plans by Richard Gambler of Greensboro. (Recently noted.)

N. C., Spencer.—J. K. Dorsett has plans by Wheeler & Stern, Charlotte, N. C., for dwelling; eight rooms; frame; heating not decided; electric lighting; slate roof; cost \$4000.

Okla., El Reno.—J. W. Vance will erect \$5000 residence.

Okla., Oklahoma City.—L. D. Kight will erect residence at 1113 W. 5th St.; two stories; frame; cost \$5500.

S. C., Charleston.—Palmetto Realty & Investment Co. will erect dwelling at 147-149 Meeting St.; cost \$4500.

Tenn., Knoxville.—E. B. Henry, Fountain City, Tenn., has plans by T. H. Gildard of Knoxville for dwelling; 54x26 feet; construction by owner. (Recently noted to cost \$3200.)

Tenn., Memphis.—Diocese of Tennessee contemplates erecting rectory for St. Luke's Episcopal Church. (See "Churches.")

Tenn., Memphis.—Joseph J. Mackey will erect residence at 1027 Faxon Ave.; cost \$1200.

Tenn., Memphis.—P. A. Monteverde is having plans prepared by Hanker & Cairns, Memphis, for residence on Peach St. near Waldron Blvd.; two stories; eight rooms; cost \$10,000.

Tenn., Nashville.—A. W. McNeill will erect stucco dwelling at 1031 Seventeenth Ave.; cost \$3500.

Tex., Berclair.—W. N. Armstrong will erect residence in West Berclair.

Tex., Beaumont.—Lee Blanchard has plans by H. C. Mauer & Co. for dwelling; two stories; brick veneer; cement and tile roof; hot-air heat; cost \$9000; contract let within three weeks.

Tex., Dallas.—J. L. Chandler will erect eight-room frame dwelling on Wilmet St.; cost \$3000.

Tex., Dallas.—W. K. Lynch will erect eight-room frame residence; cost \$3000.

Tex., Dallas.—Lynch & Stone will erect 20-room frame residence on Jefferson St.; cost \$5000.

Tex., Dallas.—H. M. Smith will erect eight-room frame residence on Madill St.; cost \$3000.

Tex., El Paso.—K. L. Hatfield has plans by Gibson & Robertson for bungalow at Maple and Grand Aves.; cost \$5000.

Tex., El Paso.—Joe Dunne will erect four bungalows on Alameda Ave. in Woodlawn; brick; five rooms each; cost \$2500 to \$3000 each; also erect two brick bungalows at Latta St. and Alameda Ave. to cost \$4000.

Tex., El Paso.—C. M. Youngberg will erect three brick bungalows at Raynor and Tularosa Sts.; cost \$4500.

Tex., El Paso.—W. D. Mosley will erect brick bungalow at Rio Grande and Birch Sts.; cost \$2985.

Tex., Jourdan.—C. Mahone of San Antonio, Tex., will erect eight dwellings.

Tex., Kingsville.—Kleberg Town & Improvement Co., it is reported, will erect 25 or 30 residences; cost \$1500 to \$3000 each.

Tex., Port Arthur.—R. H. Dunn will erect residence on Lake Shore drive; cost \$4000.

Tex., Port Arthur.—W. S. Cook will erect residence on Proctor St.; cost \$3000.

Tex., San Antonio.—E. J. Gray will erect two two-story dwellings on McCullough Ave.; cost \$5000.

Tex., San Antonio.—F. S. Coddington will erect store and dwelling on Main Ave.; cost \$4000.

Va., Richmond.—H. R. Pollard will repair stores and dwellings. (See "Stores.")

Va., Richmond.—H. S. Wallerstein has plans by Carneal & Johnston, Richmond, for residence; 30x30 feet; ordinary construction; hot-water heat; electric lighting; slate roof; Joseph Fox & Sons are lowest bidders.

W. Va., Fairmont.—J. A. Jamison, M.D., contemplates rebuilding dwelling; plans not determined. (Recently reported burned.)

W. Va., Welch.—C. A. Swope will erect 11-room residence on Maple Ave.

## GOVERNMENT AND STATE

Ala., Tuscaloosa.—Dwelling.—Alabama Insane Hospital trustees, Sam W. John of Birmingham, Ala., president, will erect residence for superintendent.

La., Crowley.—Postoffice.—Treasury Department, Office of Supervising Architect, Oscar Wenderoth, Washington, D. C. Proposals received until December 23 for construction, complete (including plumbing, gaspiping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches), of United States postoffice; one story and mezzanine; ground area of about 5100 square feet; non-fireproof construction; stone and stucco facing; tile and copper roof; drawings and specifications obtainable from custodian of site or at this office, at discretion of supervising architect; drawings and specifications ready for delivery November 11.

Tex., Galveston.—Storehouse.—Treasury Department, Office of Supervising Architect, Oscar Wenderoth, Washington, D. C. Proposals received until November 22 to erect storehouse at U. S. Quarantine Station; one story; frame construction; wood shingle roof; ground area of 1000 square feet; pile foundation; drawings and specifications obtainable from custodian of U. S. Quarantine Station, Galveston, or at this office, at the discretion of supervising architect.

Va., Front Royal.—Sheds.—Bids received by Depot Quartermaster, Front Royal, until October 21 to erect four sheds; Government to furnish materials; particulars from C. H. Conrad, Jr., Quartermaster Corps.

## HOTELS

Ark., Hoxie.—Boas-Gibson Hotel Co. will rebuild hotel reported burned; loss \$25,000.

Fla., Oakland.—Oakland Hotel Co. incorporated with \$15,000 capital stock; S. J. Briley, president.

Ky., Louisville.—Frank Eckert and Dan F. Murphy of Fidelity & Columbia Trust Co. leased Fifth Ave. Hotel on 5th St. between Green and Walnut Sts., and are having plans prepared by Joseph & Joseph, Louisville, for improvements; will install grill-room; hot and cold water baths in each room; telephones, electric elevator, etc.; total cost about \$25,000.

Ky., Louisville.—J. J. Gaffney, architect, 437 S. 2d St., is preparing plans for hotel;

70x140 feet; fireproof construction; cost \$250,000; bids opened October 24. (Mr. Gaffney and associates recently noted as to erect hotel.)

N. C., Asheville.—Frank Cox estate awarded contracts for \$65,000 to \$75,000 worth of improvements to Battery Park Hotel, to include baths for every room, with hot and cold water, hardwood floors, electrical fixtures, enlarging heating plant, installing additional passenger elevator, etc.

N. C., Wilmington.—W. B. Brice and associates purchased about 338 acres of land bordering on Greenfield Lake and will, it is reported, organize company to erect tourist hotel.

N. C., Wilmington.—Seashore Hotel Co., Wrightsville Beach, plans to improve Seashore Hotel, including remodeling main portion, enlarging dining-room, erecting additional story and a half to provide 50 to 75 additional rooms.

S. C., Laurens.—Aiken & Watts, owners, will erect 16 additional rooms to King's Hotel; install steam-heating plant; plans by H. C. Meyer, Laurens. (Recently noted as having plans prepared by C. L. Rounds Construction Co.)

## MISCELLANEOUS

Ala., Birmingham.—Home.—Pisgah Home Association, Robert M. Jenkins, president, will erect two homes, one for men, other for women. (See "Churches.")

Ala., Birmingham.—Zoo.—Birmingham Zoological Association, Frank W. Smith, temporary president, will erect zoo buildings in Avondale Park.

Fla., Tampa.—Clubhouse.—Centro Asturiano Club will open bids November 20 to erect club building and theater recently noted; 80x180 feet; ordinary construction; steam or hot-water heat; electric lighting; copper roof; exterior walls of buff or gray brick, terra-cotta, limestone or granite and marble; interior to have tile floors, marble wainscoting and stairs and metal ceiling; cost \$100,000; plans by Bonfoey & Elliott, Tampa. (See "Machinery Wanted.")

Ga., Atlanta.—Clubhouse.—Joseph Gatins is having plans prepared to remodel residence for clubhouse. (See "Apartment-houses.")

Ga., Atlanta.—Clubhouse.—Druid Hills Golf Club is having plans prepared by William L. Stoddart, 30 W. 38th St., New York, for clubhouse; two stories; lower floor to contain kitchen, cafe, bathrooms, etc.; dining-room, lounge-room and other rooms above; wide porch around building; golf links will comprise 120 acres, one-half of which is located in city limits; course designed by Mr. Barker. (Recently noted organized by Asa Chandler and others.)

La., Lake Charles.—Presbytery.—Bids received until December 3 to erect presbytery for Church of Immaculate Conception. (See "Churches.")

Mo., St. Louis.—Sanitarium.—Missouri Baptist Sanitarium Board of Managers appointed committee to solicit fund of \$50,000 to add to \$100,000 gift to erect building; E. W. Stephens, chairman of committee, Columbia, Mo.

Mo., St. Louis.—Fence.—Anheuser-Busch Brewing Association will expend \$3000 to erect brick fence at 10 Dorcas St.

N. C., Winston-Salem.—Home.—Children's Home, H. A. Hayes, superintendent, will erect model cottage with accommodations for 25 children and to contain kitchen, dining-room, sleeping-rooms and rooms for matron and teachers; will also erect central building to cost about \$20,000. (Recently noted.)

Okla., El Reno.—Clubhouse.—Verlin Elintracht plans to erect clubhouse; cost about \$5000.

Tex., El Paso.—Market.—Central Market Co., capital stock \$5000, incorporated by E. O. Lochausen, T. W. Adolin and Jules Grandmougin.

Tex., Orange.—Fair.—Orange County Fair Association will erect additional exposition building; covered with corrugated iron.

W. Va., Keyser.—Hospital.—Drs. C. S. Hoffman and Z. T. Kalbaugh purchased Hoffman Hospital and will erect three additional rooms for nurses.

## RAILWAY STATIONS, SHEDS, ETC.

Ala., Uniontown.—Southern Railway Co., H. W. Miller, assistant to the president, 621 Equitable Bldg., Atlanta, Ga., is receiving bids to erect freight and passenger station; frame; tile roof; colored waiting-room, 19x30 feet; white waiting-room, 19x22 feet; office, 10x33 feet; express room, 10x10 feet; baggage room, 10x12 feet; freight-room, 40x50 feet. (Recently noted to cost \$13,000.)

Ark., Batesville.—St. Louis, Iron Mountain

& Southern Railway, J. R. Stephens, chief engineer, St. Louis, Mo., will, it is reported, erect passenger station; stone and pressed brick; two stories; upper floors for offices; cost \$40,000.

Md., Salisbury.—New York, Philadelphia & Norfolk Railroad, W. A. Patton, president, Philadelphia, Pa., and Baltimore, Chesapeake & Atlantic Railway, A. C. Shand, chief engineer, Philadelphia, Pa., will erect union station.

N. C., Asheville.—Southern Railway Co., H. W. Miller, assistant to president, 621 Equitable Bldg., Atlanta, Ga., will erect extension to freight depot about 200 feet long, construct transfer platforms, rearrange shed tracks, construct umbrella shed about 600 feet long with space under it and between all tracks laid in concrete, etc.; cost of improvements, \$50,000 to \$60,000. (Recently noted.)

N. C., Henderson.—Seaboard Air Line, W. L. Seddon, chief engineer, Portsmouth, Va., has plans for proposed passenger station; 144 feet long; umbrella sheds and granolithic pavements.

N. C., Winston-Salem.—Southbound Railroad Co. will erect freight station on S. Liberty St.

S. C., Spartanburg.—Charleston & Western Carolina Railway Co., A. W. Anderson, general manager, Augusta, Ga., will probably erect freight warehouse, not depot, as recently reported. (See "Warehouses.")

Tenn., Paris.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., has plans for freight depot; cost about \$20,000.

Tex., Amarillo.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., will enlarge station, raise central portion to conform to north and south sections, etc.

Va., Midlothian.—Southern Railway Co., H. W. Miller, assistant to the president, 621 Equitable Bldg., Atlanta, Ga., will not erect new station; will make improvements to present depot by enlarging waiting-room, freight and office rooms.

## SCHOOLS

Ala., Bay Minette.—Town Council will erect two-room brick school with accommodations for 60 pupils.

Ala., Montgomery.—Board of trustees of Woman's College plans to erect dormitory; F. J. Crampton, chairman of committee of Business Men's League, interested in project.

D. C., Washington.—J. Not McGill, president National Training School for Girls, states proposed school buildings will cost about \$60,000; fireproof construction. (Recently noted to receive bids through T. J. D. Fuller, architect, 806 17th St. N. W., Washington, until October 30 to erect additional building and heating plant.)

Ga., Americus.—City will hold election to vote on \$45,000 bond issue to erect school. Address The Mayor.

Ga., Byronville.—City contemplates improvements to school. Address The Mayor.

Ky., Pineville.—Board of Education, T. R. Ware, secretary, invites architects to submit plans, etc., for graded school building; 14 classrooms, cloakrooms and auditorium; latter to have seating capacity for 600 or 700; ordinary construction; steam heat; electric lighting; slate roof; cost \$25,000. (Recently noted.)

La., New Orleans.—Charles R. Kennedy, City Comptroller, will receive bids until November 4 to erect brick school in square bounded by Octavia, Chestnut, Coliseum and Peters Aves., according to plans and specifications on file in office of City Engineer; deposit \$1000 with City Treasurer and enclose his receipt with bid; blank form of proposal from City Engineer.

Md., Frederick.—Woman's College trustees have plans by John B. Hamme of York, Pa., for college buildings; administration building, 230 feet, with two wings 100 feet each; brick; trimmed with Indiana limestone; three stories, with basement; cost \$70,000 to \$75,000; remodel present structure to contain gymnasium, laundry plant, auditorium with gallery, seating capacity of 600 to 800; swimming pool 25x40 feet, with lockers, etc.; cost \$7000 to \$9000; contract let about March 1. (Previously noted.)

Miss., Jonestown.—T. E. Oberst, R. W. Wise and W. M. Bloodworth, building committee, have plans by Fred H. Eely & Co., Memphis, Tenn., for school; two stories; frame; assembly hall 30x56 feet on second floor.

Miss., Perkinston.—L. L. Chevally of Gulfport, Miss., is lowest bidder at \$12,314 to erect academic building for Harrison County



Agricultural High School; plans and specification by William Drago, New Orleans, La. (Lately noted.)

Mo., St. Joseph.—City will vote November 5 on \$500,000 school building bond issue. Address The Mayor.

Okla., Redland.—Redland School District sold \$9000 bond issue and will erect school. Address District School Trustees.

Okla., Tulsa.—School Board, E. J. Davidson, clerk, will receive bids until October 23 to erect school on block 201, original town-site of Tulsa; plans at office of Ralph E. Swearingen, architect, Tulsa.

S. C., Columbia.—Building committee, board of trustees of Columbia city schools, will receive bids at office of architects until November 15 (extended date) to erect Logan school on Elmwood Ave.; certified check for 5 per cent. amount of bid; plans and specifications at office of Wilson & Sompayrac, architects, Columbia, or may be had on deposit of \$25; structure will be 200x70 feet; two stories and basement; fireproof corridors and stairs; balance, ordinary construction; blower system of heating; tin roof; cost \$55,000.

S. C., Marion.—School Board, R. J. Blackwell, secretary, postponed date of receiving bids from October 23 to November 8 to erect school building; 120x160 feet; ordinary construction; mechanical system of hot-air heat; electric lighting; to contain 14 classrooms; exterior of pressed brick to water-table; common brick above; limestone trimmings; interior pine trimmings, maple and pine floors; cost \$40,000; plans by Wheeler & Stern, Charlotte, N. C. (Recently noted.)

S. C., Pauline.—School trustees will erect \$3000 school; four classrooms and auditorium.

Tenn., Johnson City.—City will open bids through Baumann Bros., architects, about December 1 to erect school; 110x142 feet; fireproof construction; steam heat; electric lighting; gravel roof; cost \$55,000. (Recently noted to receive bids about September 1.)

Tenn., Knoxville.—Knox County High School Board has plans by L. C. Watters for high-school building; 60x70 feet; fireproof construction; slate roof; cost \$14,000. (Recently noted.)

Tex., Abilene.—Simmons College is having plans prepared for administration building; 130x150 feet; three stories; fireproof construction; cost \$40,000; plans by William P. Preston of Abilene; date of opening bids not set.

Tex., Denison.—City will vote November 2 on \$100,000 bond issue to erect high school. Address The Mayor. (Recently noted to vote November 12.)

Tex., Giddings.—Giddings Independent school district voted \$30,000 bond issue to erect school. Address District School Trustees.

Tex., Granger.—Granger school district voted \$3000 bond issue to erect school. Address District School Trustees.

Tex., Houston.—Dan C. Smith, City Secretary, will open bids November 25 to erect Longfellow School on Chartres St.; three stories; 12 rooms; fireproof; work to be let in six separate bids, as follows: General work, plumbing, sewerage and gasfitting, wiring, vacuum cleaning, steam heating and steel lockers; alternating bids to be received on direct vacuum heating system and also on combined ventilating and heating systems; plans and specifications at office of Sangulnet, Staats & Barnes, architects, Houston; bidders for general work must enclose check for 5 per cent. of bid, and bidders for remainder of work check for 20 per cent. of amount of bid; checks payable to H. B. Rice, Mayor. (City lately noted as rejecting bids and to call for new bids.)

Tex., Stamford.—Stamford Independent school district trustees, Dr. W. N. Bunkley, president, have plans by Elmer G. Withers, Stamford, for two brick schools; bids received until October 19. (Previously noted.)

Tex., Swan.—School Board, W. R. Swann, secretary, has plans by J. H. Bothwell, Tyler, Tex., for school; two stories; brick. (Previously noted.)

Va., Graham.—Town Council accepted plans by C. R. Ragan, Roanoke, Va., for school; 16 rooms; brick and wood; concrete and stone foundation; electric lights; to contain auditorium; ordinary construction; mechanical fan system of heating; Johns-Manville asbestos roofing; cost \$30,000; bids opened about December 15. (Recently noted.)

W. Va., Benwood.—Board of Education of Union school district will receive bids until November 14 to erect high school; 30 rooms; fireproof construction; bids only considered on entire work; certified check for 5 per cent. amount of bid, payable to H. W. Rodgers, president of board; plans and specifications

at office of Charles D. McCarty, architect, National Exchange Bank Bldg., Wheeling, W. Va. (Recently noted.)

### STORES

Ala., Altoona.—Walter Hall will erect store building; two stories; brick; cost \$3000 to \$4000.

Ala., Birmingham.—H. W. Newsome will expend \$10,000 for improvements to building at 1916 Second Ave.; two stories; brick.

Ala., Bessemer.—Erliek & Lefkovits will erect store building on First Ave. between 19th and 20th Sts.; double front; brick; cost \$8000.

Ala., Gadsden.—S. H. Kress & Co., New York, will erect store on Broad St. between 3d and 4th Sts.; two stories.

Ala., Oneonta.—J. W. Roebuck will erect store; two stories; brick.

Ala., Oneonta.—T. H. Davidson and Mr. Gramlin will erect store.

Ala., Oneonta.—Oneonta Furniture Co. will erect brick store.

Fla., St. Petersburg.—C. O. Bond will erect store building; 40x100 feet; fireproof construction; flat roof; plans and construction by owner.

Fla., St. Petersburg.—A. C. Odom and C. C. Odom, Jr., will erect store and office building on 5th St., between Central and First Aves.; two stories; brick; 40x100 feet; walls to support six additional stories; pressed brick.

Fla., St. Petersburg.—Brown & Cooper will erect store, office and apartment building on Central Ave. near 9th St.; two stories; stores on lower floor; offices and apartments above.

Fla., Jacksonville.—John A. Cunningham will open bids about January 1 to erect store building; 50x135 feet; 11 stories; fireproof construction; steam heat; electric lighting; electric elevator; cost \$150,000; plans by Bonfoey & Elliott, Tampa. (Recently noted.)

Fla., West Palm Beach.—F. A. Guild (not F. A. Gould as recently stated) will erect 50x153-foot business building; two or three stories; fireproof construction; electric lighting; two electric elevators, passenger and freight; plans not fully determined. (See "Machinery Wanted.")

Fla., Lakeland.—D. B. Dickson has not made plans for proposed store and office building; 41x112 feet; two stories; red pressed and burnt brick; electric lighting; character of roofing not determined; cost \$10,000. (Recently noted.)

Ga., Atlanta.—Foote & Davies will alter store at Edgewood Ave. and Pryor St.; cost \$14,000; day work.

Ky., Lexington.—John Noonan, Winchester, Ky., is having plans prepared by Rowe & Glannini, Lexington, for improvements to building at 125-127 E. Main St.; will erect two-story extension about 30 feet deep and install new front; cost \$5000.

La., New Orleans.—Sam B. Hollander will erect several three-story structures on Camp St. for stores, offices and theater; site 75x165 feet.

Md., Baltimore.—John F. Carter, Plimco Blvd. near Glenn Ave., has plans for store and dwelling. (See "Dwellings.")

Mo., St. Louis.—Caesar D. Marlo and Caesar Oldani purchased block of land at Cooper St. and Botanical Ave. and will, it is reported, establish colony; erect business buildings on corners and flats and cottages on inside lots; will expend \$50,000 within year.

Mo., St. Louis.—Delor Realty Co. has plans by Preston J. Bradshaw, Liggett Bldg., St. Louis, for store at 443 Olive St., to be occupied by Wright-Gilmore Decorating Co.; two stories, upper story of half timber and rough cast cement; tile vestibule and oak panelling.

N. C., Winston-Salem.—A. L. Stevenson will expend \$3500 to erect fireproof store; 47x102 feet; steam heat; gas lighting; tin roof; plans and construction by owner. (Recently noted.)

Tenn., Cleveland.—S. A. Heartsill will erect brick business building adjoining residence at Ocoee St. and Central Ave.

Tex., Brenham.—Henry Thiel will improve Busse Building; install iron and plate-glass front, etc.; will be occupied by J. H. Quebe.

Tex., Dallas.—W. H. Eckels will erect two-story brick store on Main St.; cost \$3500.

Tex., El Paso.—J. E. Bischoff will erect three-story brick building at 2d and Virginia Sts.; cost \$4500.

Tex., Port Arthur.—T. H. Drunagle will erect building on Procter St.; two stories.

Tex., Houston.—Gordon Sewall & Co. will

open bids about November 15 to erect wholesale grocery building; 100x100 or 150 feet; concrete and fireproof construction; two elevators; cold-storage plant to be installed; plans by Sangulnet & Staats, Fort Worth, Tex. (Recently noted.)

Tex., San Antonio.—F. S. Coddington will erect store and dwelling. (See "Dwellings.")

Va., Richmond.—W. L. Hofheimer will erect two-story brick store at 114 W. Broad St.; cost \$6000.

Va., Richmond.—H. R. Pollard will expend \$3500 to repair stores and dwellings at 321-323 N. 5th St.

### THEATERS

Fla., Jacksonville.—Interstate Amusement Co., Chicago, Ill., is reported as to erect Orpheum Theater at Main and Duval Sts.; 112x93 feet; fireproof; reinforced concrete; seating capacity 2200; six stories; install ventilating system, etc.; cost \$275,000; Charles A. Leach, Jr., local manager.

La., New Orleans.—Sam B. Hollander will erect theater. (See "Stores.")

Tex., Corpus Christi.—L. G. Collins has plans by Guy Dale, Corpus Christi, and will have other plans prepared by Carlton Adams, San Antonio, Tex., and select one of the two acts for theater; four stories; seating capacity about 900; probably contain stores and offices.

### WAREHOUSES

Mo., Kansas City.—Stevens Oil Co. will erect metal warehouse at 2953 Wyoming St.; cost \$3500.

Ga., Moultrie.—E. D. Farrell has plans by Bishop & Greer, Valdosta, Ga., for ware-

house; 60x200 feet; one story; mill construction; gravel roof; brick walls and stone trimmings; cost \$8000.

Mo., St. Louis.—St. Louis Cordage Co. is having plans prepared by Kilpatrick & Rathmann, St. Louis, for warehouse on 11th St.; four stories; 60x90 feet; cost \$20,000. (Lately noted.)

Mo., St. Louis.—Southern Mills is having plans prepared by Kilpatrick & Rathmann, St. Louis, for warehouse at 9th and Marion Sts.; three stories; 30x140 feet; cost \$14,000. S. C., Greenville.—Carolina Supply Co. is reported as to erect warehouse at Jackson and Broad Sts.

S. C., Greenville.—B. E. Geer is interested in erection of warehouses to be occupied by Gilreath-Durham Company and Poe Hardware & Supply Co.; cost \$25,000.

S. C., Spartanburg.—Charleston & Western Carolina Railway Co., A. W. Anderson, general manager, Augusta, Ga., will probably erect freight warehouse 300x50 feet; cost \$15,000; construction by company's force.

Tex., Galveston.—Metals Warehouse Co., incorporated with \$10,000 capital stock by Charles C. Muir and others.

Tex., Kerrville.—Charles Schreiner Company will erect warehouse.

Texas, Lindale.—Farmers' Union Warehouse Co., capital stock \$2500, incorporated by J. M. Morris and Bob Stone.

Tex., Waco.—C. L. Johnson & Son will erect warehouse at 8th and Webster Sts.; two stories; pressed brick; 20x160 feet.

Va., Alexandria.—Alexandria Glass Works, J. W. Monroe, manager, will rebuild warehouse reported burned; 300x50 feet; mill construction; no bids asked.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Ala., Birmingham.—T. H. Joy and associates awarded general contract to Joy Construction Co., Birmingham, to erect apartment-house at 20th St. and Eleventh Ave.; 10 stories; cost \$125,000. (Recently noted.)

Ark., Little Rock.—F. W. Allsopp awarded contract to erect apartment and store building. (See "Stores.")

Fla., Orlando.—W. H. Robertson awarded contract to Jim pounds to erect 20-room apartment-house on South St.

Ga., Savannah.—Selig Eicholz awarded contract to W. J. Burney to erect eight two-story apartment-houses on Gwinnett St. near Broad St.; four apartments each; metal roofs.

Tenn., Memphis.—J. W. Bell, Pontotoc, Miss., awarded contract to W. N. Moore to erect apartment building at 1330 to 1338 Madison Ave.; three stories; red brick; frontage 83 feet; three and four-room suites; plans by John Galsford, Memphis.

Tenn., Memphis.—Boyle & Treadwell will expend \$20,000 to erect apartment and store building; ordinary construction; gravel roof; plans by Hanker & Cairns, Memphis; contract recently noted awarded to Edward Abele, 1097 Rayburn Bldg., Memphis.

Tex., Houston.—Southern Loan & Investment Co. awarded contract to erect apartment and store building. (See "Stores.")

Tex., Matagorda.—John W. Gains, Bay City, Tex., has plans by and awarded contract to E. C. Baker, Matagorda, to erect 7 or 8 tenement-houses with barns and other outbuildings; different sizes; mill construction; cost \$1500 to \$3000 each.

Va., Richmond.—Dr. B. M. Rosebro, 521 W. Grace St., will expend \$9500 to erect apartment building; 27½x71 feet; four apartments; ordinary construction; hot-water heat; tin roof; cost \$9500; contract awarded to Slaughter & Perrin, 402 National Bank of Virginia Bldg., Richmond. (Recently noted under "Dwellings.")

### ASSOCIATION AND FRATERNAL

Mo., Mexico.—Ancient Free and Accepted Masons awarded contract to erect home; cost \$8750.

Tex., Bay City.—S. R. Sholars awarded contract to Harry Osborn, Bay City, to erect lodge building to be occupied by Loyal Order of Moose; 75x115 feet; ordinary construction; brick; Woolfelt tar and gravel roofing; cost 9000; plans by Green & Finger, Houston, Tex. (Loyal Order of Moose recently noted to erect building.)

Tex., Lufkin.—W. P. Berry, 1118 Union National Bank Bldg., Houston, Tex., has contract to erect addition to present bank building for Benevolent and Protective Order of Elks; 50x75 feet; cost \$5000.

Va., Norfolk.—Union Order of Tents award-

ed contract to J. W. Wells to erect store, office and lodge building on Church St. between Lee and North Sts.; brick; cost \$20,000.

### BANK AND OFFICE

Ala., Birmingham.—Jefferson County Savings Bank awarded contract to Virginia Iron & Bridge Co. of Roanoke, Va., for about 2000 tons of steel for 22-story office building; 75x100 feet; steel frame; seven elevators; exterior granite and terra-cotta; approximate cost \$700,000. (Lately noted.)

Ga., Atlanta.—William T. Henley awarded contract on percentage basis to R. M. Walker, Atlanta, to erect office and store building on Forsyth St.; first floor, stores; 500 offices above; 16 stories and two-story basement; 200x114 feet; structure will be erected in two or three sections; first section will be 16 stories, 200x72 feet, and two stories, 200x72 feet; two-story portion will be built to support additional 13 stories; three entrances, two stories high; rotunda, 50x30 feet; terra-cotta faced ceilings and walls; six elevators; Gothic architecture; first story granite; upper stories terra-cotta facing; cost about \$1,000,000; plans by Morgan & Dillon and W. T. Downing. (Previously noted.)

Tex., Fort Worth.—State National Bank awarded contract to Buchanan & Gilder of Fort Worth to erect bank and office building; 50x95 feet; 12 stories; fireproof construction; two high-speed elevators; gravel roof; cost \$300,000; plans by Sangulnet & Staats of Fort Worth. (Recently noted.)

Tex., Goliad.—First National Bank awarded contract to Bailey Mills Co., Victoria, Tex., to erect bank building; two stories; fireproof; cost \$16,000; plans by Green & Finger, Houston, Tex. (Previously noted.)

Tex., Port Arthur.—Roth estate awarded contract to erect office and store building recently noted. (See "Stores.")

Va., Richmond.—Estate of Joseph Bryan awarded contract to J. W. Atkinson & Co. to erect office building on 9th St.; reported cost \$75,000; plans by C. K. Howell, Travelers' Bldg., Richmond. (Recently noted.)

Va., Norfolk.—Union Order of Tents awarded contract to erect store, office and lodge building. (See "Association and Fraternal.")

### CHURCHES

N. C., Winston-Salem.—North Winston Baptist Church, Rev. David Sampson, pastor, awarded contract to Fogle Bros. to erect church at E. 5th St. and Greenwood Ave.; brick; main auditorium 35x50 feet; plans include two anterooms and baptistry. (Lately noted.)

S. C., Walhalla.—First Baptist Church awarded contract to R. N. Smith, West Union, S. C., to erect edifice; pressed-brick construction.

Tenn., Memphis.—Diocese of Tennessee will

expend \$30,000 to erect edifice for St. Luke's Episcopal Church; seating capacity 850; ordinary construction; steam heat; electric lighting; slate roof; plans by John Galsford; contract recently noted awarded to R. A. Harris & Son, Memphis; also contemplating erecting rectory.

Tex., Bryan.—Temple Freda congregation awarded contract to Walter Cook, Houston, Tex., to erect brick synagogue; plans by Green & Finger, Houston, Tex.

Va., Richmond.—Calvary Baptist Church awarded contract to Holt & Whitman to erect detached brick church on Orleans St.; cost \$10,000. (Lately noted.)

### CITY AND COUNTY

Fla., Tampa.—Hospital.—Board of Public Works awarded contract at \$12,328 to W. D. Frisbie to erect addition to Gordon-Keller Memorial Hospital; plans by Bonfoey & Elliott, Tampa. (Recently noted.)

La., Jonesboro.—Jail.—Jackson parish awarded contract to erect courthouse and jail. (See "Courthouses.")

### COURTHOUSES

La., Jonesboro.—Jackson parish awarded contract to Falls City Construction Co., Louisville, Ky., to erect courthouse and jail; former to be Corinthian style; 80x120 feet; fireproof throughout; reinforced concrete, stone, terra-cotta or brick, and slate roof; two stories, basement and cupola; Grecian columns in front; vaults; steam heat; electric lights; all electric wires into building to be under ground; corridor floors of marble terrazzo, surmounted with marble wainscoting; jail of solid reinforced concrete with walls and floors double reinforced with steel bars; steel cells in certain rooms; steam heat; electric lights; cost \$100,000; plans by Stevens & Nelson, New Orleans, La.

### DWELLINGS

Ala., Bay Minette.—O. E. McMillen awarded contract to Bay Minette Land Co., Bay Minette, to erect two-story dwelling.

Ala., Bay Minette.—A. J. Wallace & Son awarded contract to Bay Minette Land Co., Bay Minette, to erect bungalow.

D. C., Washington.—Mrs. Annie L. Lukel, 1220 Monroe St., Brookland, Washington, awarded contract to erect dwelling; 35x54 feet; frame; hot-water heat; gas and electric lighting; cost \$6500; plans by A. S. J. Atkinson, Washington.

D. C., Washington.—Henry B. Dawson, 1419 G St. N. W., awarded contract to erect dwelling at 2904 36th St. N. W.; cost \$4000; plans by Merrill Vaughn, Woodridge Post-office, Washington.

Ga., Atlanta.—S. E. Broadnax awarded contract to T. C. and Paul Wesley to erect two-story brick veneer dwelling at 10 St. Augustine Pl.; cost \$6885.

Md., Baltimore.—Thomas W. Gully, Palatka Ave. near Lewin Ave., has plans by and awarded contract to J. F. Hardy, 4200 Groveland Ave., Baltimore, to erect cottage on Bell Ave. near Lewin Ave.; two and a half stories; frame; 26x26 feet; foundation of stone in cement mortar; slate roof; steam heat; cost about \$5000.

Md., Roland Park.—Robert Cole, 107 Ridgewood Rd., awarded contract to G. Walter Toveil, Eutaw and Dolphin Sts., Baltimore, to erect residence on Edgevale Rd.; two and one-half stories; 43x41 feet; plans by E. L. Palmer, 408 Roland Ave., Roland Park.

Mo., St. Louis.—R. H. Clement, 1528 Obear Ave., awarded contract to J. Chapman, 4141 Moffett St., St. Louis, to erect dwelling at 2235 Alice St.; 29x34 feet; ordinary construction; hot-water heat; slate roof; cost \$4000. (Recently noted.)

Mo., St. Louis.—William T. Hill, president J. H. Teasdale Commission Co., awarded contract to Moritz Eysell to erect three-story residence and two-story garage at 4259 Flora Blvd.; cost \$20,000; plans by Thomas C. Lee.

Mo., St. Louis.—C. L. Whittemore (not F. W. Whittemore as recently stated) awarded contract to Ratermann Building & Contracting Co., 1943 St. Louis Ave., St. Louis, to erect dwelling; two stories; 120x35 feet; semi-fireproof; hot water heat; slate roof; cost \$45,000; plans by James P. Jamieson, Security Bldg., St. Louis.

N. C., Winston-Salem.—J. G. Messick awarded contract to E. E. Crofts to erect residence on Oak and 8th Sts.; two stories; 10 rooms; electric lights; cost \$2900.

N. C., Winston-Salem.—C. L. Begby awarded contract to E. E. Crofts to erect residence at Cherry and 2d Sts.; two stories; 10 rooms; electric lights; cost \$3900.

S. C., Walahalla.—W. M. Brown will expend \$6000 to erect dwelling; 24 rooms, including two bathrooms, four halls, etc.; concrete blocks; tile floors; hot-air heat; electric lighting; metal shingle roof; plans and construction by R. N. Smith, West Union, S. C. (Recently noted.)

Tenn., Memphis.—J. C. Pidgeon awarded contract to D. L. Crouch to erect residence at 1906 Overton Ave.; cost \$12,000.

Tenn., Memphis.—R. Monat awarded contract to E. Iverson to erect two residences at 240-46 Belvedere Blvd.; cost \$5000 each.

Tex., Brenham.—Mrs. Pauline Graber awarded contract to erect residence on Main St.

Tex., Fort Bliss.—Captain Juan S. Hart awarded contract to J. C. White Realty Co. to erect six cottages; four rooms; brick; cost \$12,000.

Tex., Houston.—J. J. Carroll awarded contract to W. P. Berry, 1118 Union National Bank Bldg., Houston, to erect proposed dwelling; two stories; frame; slate roof; hardwood floors; plans by R. A. Hardin, Carter Bldg., Houston.

Tex., Orange.—M. G. Ready awarded contract to W. T. Dunham, Orange, to erect residence; two stories; seven rooms.

Va., Danville.—J. H. Schoolfield, Jr., awarded contract to Monroe & Adams, Lynchburg, Va., to erect proposed dwelling; 46x48 feet; two stories and basement; frame; stucco; Spanish tile roof; vapor heat; cost \$11,300; contract for heating let to F. L. Watson & Co. of Lynchburg, Va.; plans by McLaughlin & Johnson, Lynch Bldg., Lynchburg, Va.

Va., Byllesby.—Appalachian Power Co., Bluefield, W. Va., awarded contract to C. W. Hancock & Sons, Lynchburg, Va., to erect 15 dwellings; cost \$33,000.

Va., Norfolk.—John R. Doles awarded contract to McClannan Bros. to erect two brick residences on Walker Ave.; total cost, \$3200.

Va., Petersburg.—Executive committee of Virginia Normal and Industrial Institute accepted plans and awarded contract for residence. (See "Schools.")

Va., Richmond.—S. W. Holderoff awarded contract to James Fox & Son to erect dwelling on 34th St.; cost \$5800.

Va., Richmond.—J. Lee Davis awarded contract to Davis Bros. to erect two brick dwellings on Elm St.; cost \$2500.

Va., Richmond.—M. L. Hofheimer awarded contract to A. C. Houston & Son to erect detached brick residence at 114 W. Broad St.; cost \$6000.

Va., Richmond.—American Unitarian Association awarded contract to W. S. Quarles to erect dwelling on Harrison St.; brick; detached; cost \$5700. (Lately noted.)

W. Va., Lick Branch.—Appalachian Power Co., Bluefield, W. Va., awarded contract to G. W. Hancock & Co., Lynchburg, Va., to erect dwelling and office for superintendent of coal-field division; cost \$8000.

W. Va., McMechen.—Ward Goodwin awarded contract to erect store and dwelling. (See "Stores.")

### GOVERNMENT AND STATE

Ark., Paragould.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., awarded contract to George Hinchliff Company (recently noted as lowest bidder), 1406 Security Bldg., Chicago, Ill., to erect postoffice; ordinary brick and stone construction; wood joists and floors; iron girders; steam heat; electric lighting; tin roof; cost \$34,000.

Va., Norfolk.—Magazine Buildings.—Bureau of Yards and Docks, Navy Department, Washington, D. C., opened bids to erect two magazine buildings at Naval Magazine, Norfolk; 50x144 feet; Johns-Manville asbestos roofing; contract awarded to E. Hart, 159 S. May Ave., Norfolk.

### HOTELS

Fla., Jacksonville.—Mason Hotel Co., Harry Mason, president, awarded contract, it is reported, to Frank M. Richardson & Co., Jacksonville, to erect hotel at Bay and Julia Sts.; 11 stories; 240 rooms, each with private bath; suite containing bedroom, bath and sitting-room on each floor; exterior dark red brick with white marble and terra-cotta trimmings; lobby finished in caen stone and tile.

N. C., Salisbury.—Carolina Hotel Co., incorporated by W. C. Petty of Charlotte, N. C., and others, awarded contract to J. A. Gardner, Charlotte, N. C., to erect hotel; four stories; ordinary construction; 75x100 feet; 75 rooms; 33 bathrooms; overhead sys-

tem of steam heat; cost of elevator \$2000; plans by Wheeler & Stern, Charlotte, N. C. (Recently noted; see "Machinery Wanted.")

Tenn., Memphis.—Chicasaw Hotel Co. awarded contract to C. B. Barker Construction Co., Memphis, to erect hotel; 150x175 feet; fireproof construction; cost \$475,000; plans by Harker & Cairns, Memphis. (Other details recently reported.)

W. Va., White Sulphur Springs.—White Sulphur Springs, Inc., controlled by Chesapeake & Ohio Railway, Decatur Axtell, first vice-president, Richmond, Va., awarded contract to George A. Fuller Company, New York, and Munsey Bldg., Washington, D. C., for hotel; cost \$500,000; plans by F. T. Sterner, 139 E. 19th St., New York. (Lately noted.)

### MISCELLANEOUS

N. C., Hendersonville.—Hospital.—Patton Memorial Hospital awarded contract to J. W. Stout & Co., Sanford, N. C., to erect hospital; 66x40 feet; two stories; brick veneer; install elevator and dumbwaiter; terrazzo floors in operating-rooms; Spanish metal tile roof; cost \$8000; plans by Sayre & Baldwin, Anderson, S. C.; contract for steam heating plant awarded to J. W. McIntire of Hendersonville; plumbing contract let to Bar Hardware Co. of Greenville, S. C., and electric wiring to R. M. Oates of Hendersonville. (Recently noted.)

Va., Richmond.—Home.—Baptist Home for Aged Women awarded contract to C. L. Jenkins, 1604 W. Grace St., Richmond, to erect home; three stories; colonial style; ordinary construction; electric wiring; cost \$40,000; cost of heating plant \$2350; plans by M. L. Carneal, Jr., fourth floor National Bank of Virginia Bldg., Richmond.

### RAILWAY STATIONS, SHEDS, ETC.

Mo., Kansas City.—Union Pacific Railroad, R. H. Huntley, chief engineer, Omaha, Neb., awarded contract, it is reported, to James Stewart & Co., New York, to erect freight-house at 11th and Wyoming Sts.; one story; steel and concrete; cost \$45,000.

Tenn., Johnson City.—Southern Railway, H. W. Miller, assistant to president, 621 Equitable Bldg., Atlanta, Ga., awarded contract to S. M. Beaumont & Co., Knoxville, Tenn., to erect passenger and freight depot; former 40x128 feet; white waiting-room with 2000 square feet floor space; freight station, 50x250 feet; cost \$78,000 with appurtenances. (Previously noted.)

Tex., Somerville.—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., awarded contract to erect \$5000 storeroom in connection with car-repairing department.

Va., Richmond.—Richmond & Rappahannock River Railway awarded contract to erect terminal building near 29th and P Sts.; two stories; concrete and brick; 39x115 feet; cost \$15,000; plans by Noland & Baskerville, Richmond. (Previously noted.)

### SCHOOLS

Ala., Grand Bay.—Mobile School Commissioners, L. H. McNeill, supervising architect, Yerby Bldg., Mobile, awarded contract to Clark Olmstead, Mobile, to erect school; 60x60 feet; frame; cost \$3500. (Recently noted.)

Tex., Collegeport.—School trustees, George D. Ross, secretary, awarded contract to E. E. McCune, Houston, Tex., to erect school building; 84x38 feet; brick; wood interior; tar and gravel roof; cost \$11,500; plans by Root & Slemens, Kansas City, Mo. (Recently noted.)

Va., Petersburg.—Executive committee of Virginia Normal and Industrial Institute accepted plans by S. Daly Craig for residence on grounds of the institute; 31x38 feet; ordinary construction; electric lighting; tin

roof; cost \$3000; contract awarded to Charles Holzner, R. F. D. No. 3, Petersburg.

### STORES

Ala., Birmingham.—William I. Grubb and David Roberts, Jr., will erect commercial building on Fourth Ave. between 13th and 20th Sts.; five stories; concrete; fireproof; 50x140 feet; cost about \$50,000; plans by William C. Weston, Birmingham; will be leased to Broyles Furniture Co.; install two elevators; composition roofing; contract awarded to C. M. Allen, 21st St., Birmingham.

Ark., Little Rock.—F. W. Allsopp, 6th and Gains St., awarded contract to S. R. Byarly, Palm & Woodlawn Ave., Pulaski Heights, Little Rock, to erect store and apartment building; 70x140 feet; two stories; ordinary construction; gas heat; electric lighting; composition roof; cost \$25,000. (Mr. Byarly recently noted to erect building.)

Ga., Atlanta.—William T. Healey awarded contract to erect store and office building. (See "Bank and Office.")

La., Morgan City.—Berwick & Ditch awarded contract to P. B. Gharadi to erect store on Railroad Ave. to be occupied by Fisher Bros.

La., New Orleans.—E. R. Harris awarded contract to Julius Koch to erect building at Dryades and Thalia Sts.; two stories; pressed-brick exterior; concrete floors; electric lights; composition roof; plans by O. P. Mohr.

N. C., Winston-Salem.—J. S. Dunn awarded contract to erect store building containing three rooms; one story; brick; cost \$3300.

Tenn., Memphis.—Boyle & Treadwell awarded contract to Edward Abele, 1097 Rayburn Bldg., Memphis, to erect store and apartment building. (See "Apartments.")

Tenn., Memphis.—United Cigar Co., main office at New York, awarded contract to H. L. Hulthens to remodel building at Main St. and Madison Ave.; cost \$3000.

Tex., Bloomington.—Dr. J. D. Motheral awarded contract to erect building.

Tex., Houston.—S. H. Kress & Co., 396 Broadway, New York, awarded contract to Pearson & Co., Houston, to erect store building at Capitol Ave. and Main St.; five stories; steel reinforced construction; 100x150 feet; awarded contract for excavating to A. D. Price & Co.; plans by company's architect. (Recently noted.)

Tex., Houston.—Southern Loan & Investment Co. awarded contract to W. H. Young, Lumberman's Bank Bldg., Houston, to erect store and apartment building; 95x100 feet; steam heat; composition roof; cost \$45,000.

Tex., Port Arthur.—Roth estate awarded contract to Fred Drunagle, Port Arthur, to erect store and office building recently noted to cost \$18,000; 100x130 feet; brick; five-ply composition roofing; plans by F. W. Steinman. (See "Machinery Wanted.")

Tex., San Antonio.—Dr. F. Heiff estate awarded contract to J. C. Dielmann, San Antonio, to erect business building; two stories and basement; 56x160 feet; reinforced concrete; gravel roof; cost \$34,000; cost of heating plant, \$2000; plans by August A. Heiff; Mr. Dielmann recently noted to erect building. (See "Machinery Wanted.")

Va., Norfolk.—Union Order of Tents awarded contract to erect store, office and lodge building. (See "Association and Fraternal.")

W. Va., McMechen.—Ward Goodwin awarded contract to Edward Marple to erect store and dwelling on Marshall St. near 6th St.; two stories; brick; one business room and five living-rooms.

### WAREHOUSES

Tex., Sherman.—Grayson Oil & Cotton Co. awarded contract to A. W. Peters, Sherman, to erect warehouse; 60x150 feet.

## RAILROAD CONSTRUCTION

### RAILWAYS

Ala., Fairhope.—The People's Railroad Co., which plans the construction of a line from Fairhope via Silver Hill to Robertsdale, about 13 miles, has organized by electing E. B. Gaston of Fairhope, president; Rev. C. G. Johnson of Silver Hill, vice-president; E. G. Dougherty of Fairhope, secretary, and William McIntosh of Robertsdale, treasurer. Survey is made and about one-half of the right of way is practically secured.

Ala., Pell City.—Perry and Hamilton are reported to have nearly completed construction of a five-mile railroad from the Seaboard Air Line, near Pell City, to their own mines.

Ala., Boaz.—J. M. Spradlin of Boaz, president and treasurer of the Birmingham & Chattanooga Electric Railway Co., is quoted saying that survey is now completed for the entire line of 147 miles, the engineers having just finished work between Birmingham and Boaz. Date for beginning construction is not set.

Ala., Tallahassee.—President W. M. Blount of the Birmingham & Southeastern Railway, Union Springs, Ala., is quoted saying that tracklaying from Tallahassee toward Eclectic will begin immediately.

Ark., Helena.—E. C. and J. S. Hornor are reported to have begun survey for a contemplated interurban railway from Helena to



Marianna, Ark., about 20 miles. Address, Marianna, Ark.

Ark., Letona.—The Boniphan, Kensett & Searcy Railroad Co. is reported to have completed 20 miles of an extension west.

Ark., Elaine.—Bids are to be opened at Elaine, October 25, it is announced, for the construction of 35 miles of tram railroad complete, which will require about 50,000 yards of excavation for dump. The Gerard B. Lambert Co. is interested. Address E. M. Allen, Helena, Ark.

Ark., Pleasant Plains.—H. F. McCauley of Pleasant Plains and others are reported working on plans for the construction of a railroad from there to Bald Knob, about 20 miles.

Ark., Stuttgart.—Gordon W. Peay of Little Rock, Ark., is reported appointed receiver for the Stuttgart & Rice Belt Railway, 25 miles long, and it is understood that the line will be extended to Pine Bluff, about 35 miles.

Fla., Blountstown.—The Marianna & Blountstown Railway, says a report, has opened an extension from Blountstown to Scott's Ferry, 15 miles.

Fla., Orlando.—The Orlando Railway & Navigation Co. is reported chartered with \$5000 capital stock to build a short line of railway as well as canals; headquarters at Orlando, Fla. Julius L. Giles is president; H. L. Beeman, vice-president; J. N. Bradshaw, secretary, and G. R. Ramsey, treasurer.

Fla., Pensacola.—The Gulf, Florida & Alabama Railway has completed its construction between Cantonment and Pensacola, 19 miles, and has operated a freight train over it.

Ga., Athens.—Charter has been asked for the Georgia Railroad Terminal Co. to build a connecting line 1300 feet long at Athens, Ga. Incorporators, T. K. Scott, W. S. Brand, A. G. Jackson, Carlton Hillyer and W. S. Morris, all of Augusta, Ga., and H. H. Brand, R. C. Campbell, John D. Moss, T. P. Vincent and Howell C. Erwin, all of Athens, Ga.

Ga., Moultrie.—The Flint River & North-eastern Railroad is reported to have completed an extension from Ticknor to Moultrie, 15 miles.

La., Belle Helene.—The Belle Helene Planting & Manufacturing Co. and the Alluvial Land Purchase Co. are reported planning the construction of a railroad from Belle Helene to St. Elmo, La., 15 or 20 miles, and B. A. Webb has made survey for the line.

Miss., Laurel.—The Louisiana Interstate Mineral Co. is reported organized to develop lands near Laurel, Miss., and among other work contemplates building a railroad from Natchez to Meridian, Miss., about 175 miles. Capital \$3,000,000. C. F. Peterson, formerly of New York, now at the Hotel Monteleone, New Orleans, is president; A. F. Peterson of New, Pa., vice-president; Clarence L. Foretich of Mobile, Ala., secretary; T. Bernard Burke of Eau Claire, Wis., treasurer.

Mo., Poplar Bluff.—The Butler County Railroad Co., W. N. Barron, Poplar Bluff, Mo., vice-president and general manager, is reported contemplating an extension of 20 miles; also a cut-off from Linstead to Poplar Bluff, eight miles.

N. C., Boone.—W. J. Grandin of Tidoute, Pa., president of the Yadkin River Railroad (sometimes called the Watauga Railway), is reported to have offered to extend the line from Wilkesboro via Elkinville, Elk Creek, Cook's Gap and the Watauga River into Tennessee, provided \$100,000 of bonds are voted by Watauga county, payable in installments as construction is completed. It is 23 miles to Cook's Gap and 32 miles from there to the State boundary. Election is to be held November 5. Construction now proceeding near North Wilkesboro, North Carolina.

N. C., Spring Hope.—The Montgomery Lumber Co. of Spring Hope, it is reported, will extend its railroad from Bunn about 10 miles to develop timber lands between Bunn and Rolesville. Survey made and materials on hand. Herbert E. Buell is general manager. There will be a trestle 3200 feet long.

Okl., Ardmore.—Charter is reported granted the Ardmore & Waurika Railway Co., capital \$10,000, with headquarters at Ardmore, for the construction of a line from Ardmore to Waurika, Okla., about 50 miles. Estimated cost, \$1,000,000. Incorporators, Dorset Carter, F. Hand, L. T. Cook and J. W. Williams of Purcell, Okla., and R. C. Boles of Chickasha, Okla.

Tenn., Chattanooga.—The Nashville, Chattanooga & St. Louis Railway is reported to have let contract to the Foster-Creighton-Gould Company of Nashville to erect a double-tracked steel viaduct over Running Water Creek. It will be about 1100 feet long

and 120 feet maximum height. Weight about 2000 tons. Virginia Bridge & Iron Works, Roanoke, Va., is to furnish the steel.

Tex., Brownwood.—J. H. Keefe, assistant general manager of the Gulf, Colorado & Santa Fe Railway, Galveston, Tex., is quoted saying that bids will be asked immediately for the construction of a system of freight yards and terminals at Brownwood, the estimated cost of the proposed improvements being \$520,000. This will include a freight yard, \$251,000, and engine, coach and repair yards and equipment, \$170,000. F. Merritt, Galveston, Tex., is chief engineer.

Tex., Dalhart.—The Enid, Ochiltree & Western Railroad is reported to have been purchased at the receiver's sale by Col. Charles Hamilton of Waco, Tex., who, it is said, will extend it. There are 40 miles of grade, on which 14 miles of track have been laid, all between Dalhart and Dumas.

Tex., Hemphill.—The Lufkin, Hemphill, Hempstead & Gulf Railway Co. is chartered, with headquarters at Hemphill, Tex., and \$100,000 capital stock, to build a line from Kindred, in San Augustine county, to Godwin's Ferry, on the Sabine River, in Sabine county, about 36 miles; incorporators, Hiram Knox, G. E. Pratt and J. O. Toole, all of Hemphill; C. B. Collins of Lufkin; W. M. Cady and B. E. Smith of McNary, La.; Robert Stack of Woodworth, La.; F. J. Bernhardt of Keenan, Tex., and Arch MacDonaid of Houston, Tex.

Tex., Taylor.—J. V. Watkins of Dallas, Tex., president of the Trinity Valley Traction Co., is quoted saying that financing has been obtained for its proposed line from Dallas to Austin, Tex., about 175 miles, via Waxahachie, Hubbard City, Marlin, Cameron and Taylor. Co-operation is sought from residents along the route.

Tex., Trinity.—President Charles E. Schaff of the Missouri, Kansas & Texas Railway Co. is quoted as announcing the purchase of the Beaumont & Great Northern Railroad and the intention to extend to the main line of the M., K. & T. About 50 miles of track would have to be built. A. M. Acheson, Dallas, Tex., is chief engineer.

Tex., Waco.—Construction is reported begun on the bridge of the Southern Traction Co. across the Brazos River at Waco. Pleson & Co. of Houston, Tex., have the contract. J. F. Strickland, Dallas, Tex., is president of the road.

Va., Lynchburg.—The Southern Railway is surveying for second track from Monroe to Tie River. W. H. Wells, Washington, D. C., is chief engineer of construction.

Va., Norfolk.—A new survey is reported begun for the contemplated railroad from Norfolk to Hampton and Washington, beginning at Newport News and extending about 120 miles. C. T. Hobart of Norfolk, Va., and others are interested.

W. Va., Williamson.—Most of the grading is reported done on the Pond Creek Railway, which the Norfolk & Western is building from Williamson into Pike county, Ky., about 11 miles, to develop mines along Pond Creek. Track-laying has begun.

Va., Winchester.—Torrington & Boude of Cumberland, Md., are reported to have the contract for building a short connection between the Baltimore & Ohio and the Cumberland Valley railroads at Winchester, and M. H. Shute is in charge of the work.

W. Va., Cherry Run.—The Western Maryland Railway is reported surveying for a contemplated short route between Cherry Run, W. Va., and Chambersburg, Pa., via Clear Spring, Md., about 30 miles. H. R. Pratt, Baltimore, is chief engineer.

W. Va., Morgantown.—The Weaver-Gilmore Company of Morgantown, says a report, has been given the contract for constructing a railroad from Cheat Haven to Ice Ferry, seven miles, for the West Virginia Development Co. This includes the culvert work.

### STREET RAILWAYS

D. C., Washington.—The Public Service Commission of Maryland has authorized the Washington & Rockville Railway Co. to issue \$100,000 of general mortgage 5 per cent. bonds and to increase its stock from \$50,000 to \$300,000. Part of the proceeds of the new securities, it is stated, will be used for betterments. C. F. Norment, president of the Washington Railway & Electric Co., is also president of the Washington & Rockville line.

Ky., Danville.—F. M. Wilkes, special representative of the Danville Electric Co., is quoted saying that construction of a line to Perryville, 10 miles, will begin soon. Later a line will be built to Junction City, five miles.

N. C., New Bern.—The Neuse Transportation & Street Railway Co. of New Bern,

capital \$100,000, is chartered to operate transportation lines by boats, automobiles, street railways or otherwise. A. T. Dill is president; W. C. Willett, vice-president; H. B. Craven, treasurer, others interested being Clyde Eby and A. T. Dill.

S. C., Charleston.—James Sottile is reported saying that he has purchased the seashore division of the Charleston Consolidated Railway & Lighting Co., and it is contemplated to build a railroad from Mt. Pleasant to McClellandville, about 40 miles.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

**Boiler.**—Craven Milling Co., Craven, N. C., wants prices on 40-horse-power boiler.

**Boiler, etc.**—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. November 11, then opened, for tubular boiler, switchstands, steel, iron, wire rope, chain, steel and iron pipe, stove-pipe, poultry netting, copper wire, nails, screws, sheet copper, sheet zinc, iron and steel washers, chisels, hammers, wrenches, wrench parts, pliers, twist drills, taps, files, flatters, saws, saw frames, machetes, hoes, hinges, door catches, draw locks, padlocks, paint brushes, tool handles, the plugs, forges, vises, chain and snatch blocks, grindstones, blow torches, water coolers, refrigerators, ladders, cocks, grease cups, tallow pots, water gauges, steel tapes, water-clocks, P traps, lead bends, belt lacing, hose, packing, gaskets, ash cords, mop heads, emery cloth, roofing paper, signal flags, cheesecloth, coke, chalk, soap polish, sulphate of copper, creosote oil, varnish, paints and muriatic acid. Blanks and general information relating to this circular (No. 741) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York city; 614 Whitney Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engineer offices in Seattle, Las Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, and Commercial Club, Tacoma. F. C. Boggs, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**Boilers.**—Cahaba Central Coal Co. (I. B. Krentzman and associates), West Blocton, Ala., wants prices on boilers.

**Brazing and Welding Machinery.**—See "Gasoline Torch."

**Bridge Construction.**—Proposals for construction of reinforced concrete arch bridge, 70-foot span, over tracks of Southern Railway at East Morehead St., received until 8 P. M. October 30 by Executive Board, Charlotte, N. C.; certified check for 5 per cent. amount of bid; plans and specifications obtainable from Joseph Flrth, City Engineer; A. H. Wearn, City Clerk.

**Bridge Construction.**—Noxubee County Supervisors, John A. Tyson, clerk, Macon, Miss., receives bids until 2 P. M. November 5, as per plans and specifications on file, for repair of river bridge at Macon, construction of bridge across Daucing Rabbit Creek on Macon & Memphis road and for building bridge across Wet Water Creek on Starkville Rd.; contractor to furnish material.

**Bridge Construction.**—Warren County Chancery Clerk, Vicksburg, Miss., receives bids until noon November 6 to construct concrete arch over Glass Bayou, as per plans and specifications on file with Chancery Clerk; certified check \$500; J. D. Laughlin and A. M. Paxton, clerks.

**Bridge Construction.**—R. A. Russell, Commissioner for Board of Supervisors, Rustburg, Va., receives bids until noon November 4 for bridge and concrete piers and abutments for bridge 119 feet long and 16 feet wide; plans and specifications on file with Light & Russell, Rustburg; blueprints and copies forwarded to bidders upon receipt of \$5.

**Broom Machinery and Supplies.**—Shepherdstown Ice Co., Shepherdstown, W. Va., wants catalogues and prices on broom machinery and supplies.

**Bridge Construction.**—Proposals addressed to City Council of Augusta, Ga., will

Tenn., Chattanooga.—The Mountain Railway Co. has applied for charter to build a street railway in the town of St. Elmo near Chattanooga. Incorporators, W. E. Boileau, general manager of the Chattanooga Railways; E. D. Reed, T. G. Newman, D. S. Hahn and Joseph E. Brown.

W. Va., Huntington.—The Huntington Street Railway Co., it is reported, will spend \$1,000,000 for double-tracking and other improvements.

be received by street committee until 4 P. M. October 31 for furnishing labor, tools, material and constructing complete reinforced concrete bridge across first level of Augusta canal on 15th St.; cash or certified check \$200. Plans and specifications may be seen by application to Board of Public Works; Nisbet Wingfield, City Engineer and Commissioner Public Works.

**Bridge Construction.**—B. A. Fuson, County Judge, Pineville, Ky., receives bids until 11 A. M. November 6 for construction of bridge across Clear Creek; plans and specifications on file with County Judge.

**Building Materials.**—J. A. Gardner, Charlotte, N. C., wants prices on structural steel, limestone, marble, granite, tile roof, tile floors, electric wiring and shop work for hotel at Salisbury, N. C.

**Building Materials.**—Wrenn & Garland, 7 S. Lexington Ave., Asheville, N. C., want prices on reinforcing, steel I-beams, steel window frames and sashes, steel trusses, plate glass, prism glass, etc.

**Building Materials.**—George E. Bowling & Son, 303 Gordon & Koppel Bldg., Kansas City, Mo., want prices on building materials for \$20,000 to \$25,000 garage.

**Burlap-cutting Machinery.**—Wm. C. Allen Company, Box 43, Norfolk, Va., wants addresses of manufacturers of machinery for cutting burlap for barrel covers, etc.

**Cable.**—War Department, Office of Chief Signal Officer, Washington, D. C., R. J. Burt, Capt. Disbursing Officer, receives bids until November 1 for 7000 feet submarine cable, paper-insulated, type 332, in accordance with specifications 427-c, 96-c, 534-a, drawings 106; to be furnished on three new reels, one containing 3000 feet and two 2500 feet each; also 10,000 feet cable type 402, aerial paper-insulated, specifications 197-b, 552-a; to be furnished on 10 new reels in lengths of 1000 feet each.

**Canned Goods.**—J. Rivero & Co., Allen 77, Box 3, San Juan, P. R., want to correspond relative to agency for canned fruits, meats, vegetables, etc.

**Canning Machinery and Supplies.**—G. W. Thompson, Santa Barbara, Isle of Pines, West Indies, wants addresses of manufacturers of medium size canning outfits; also wants addresses of manufacturers of tin cans; those in vicinity of New York preferred.

**Canning Machinery.**—Liberty Orchards Co., O. B. Burrell, president, Brookneal, Va., wants prices on canning equipment; opens bids about January 1.

**Cars.**—Fidelity Securities Corporation, Stahlman Bldg., Nashville, Tenn., wants 19 to 15 center-dump standard-gauge ballast cars; second-hand, first-class condition.

**Cars.**—Gulf, Florida & Alabama Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, wants prices on eight passenger and 150 freight cars.

**Castings, etc.**—F. F. Cherry, Aurora, N. C., wants addresses of manufacturers of light gray iron castings and malleable castings; also addresses of patternmakers; companies making both castings and patterns preferred.

**Cement.**—U. S. Engineer Office, Dallas, Tex. Proposals for furnishing about 16,000 barrels American Portland cement received until 12 M. November 16, then opened. Information on application. T. H. Jackson, Major, Engineers.

**Cement.**—See "Merchandise."

**Cement.**—U. S. Engineer Office, Dallas, Tex. Proposals for furnishing about 16,000 barrels American Portland cement received until 12 M. November 16. Information on

application. T. H. Jackson, Major, Engineers.

**Cold-storage Machinery.**—Liberty Orchards Co., O. B. Burrell, president, Brookneal, Va., wants prices on cold-storage machinery; opens bids about January 1.

**Conveying Machinery.**—Thomas Grate Bar Co., Tenth Ave. and 42d St., Birmingham, Ala., wants to correspond with manufacturers of overhead trolley track for foundry use.

**Cotton Compress.**—Craven Milling Co., Craven, N. C., wants prices on cotton compress.

**Crane.**—Jackson Ornamental Iron and Bronze Works, Thomas B. Hardman, manager, Jackson, Tenn., wants prices on traveling crane.

**Curbing.**—Bids received at office Board of Commissioners of Public Works, Tampa, Fla., until 2 P. M. November 5 for 50,000 linear feet of granite curbing and 350 corners of six feet radius, inspection in Tampa; delivery to begin 30 days from date of signing contract; not less than 10,000 feet to be delivered monthly. Specifications can be obtained by applying to City Engineer; certified check \$1000; D. B. McKay, chairman Board of Public Works.

**Derricks.**—Sperry & Lukins, Artesia, New Mexico, want information and prices on steel oil-well derricks. Give weights.

**Drainage, etc.**—Jack Bayou Drainage District, Arkansas, W. F. Strangeways, Southern Trust Bldg., Little Rock, Ark., chairman, receives bids until 10 A. M. October 30 for 370 acres clearing and dredging 11 miles open ditch, containing 517,000 cubic yards; specifications obtainable from chairman.

**Drainage.**—Haynes Creek Drainage District No. 1, Grayson, Ga., will let contract 10 A. M. October 29 for draining 800 acres of land; will construct canal eight miles long, 22 feet at top, 7 feet at bottom, 7 feet deep; about 156,000 cubic yards of dirt, 500 cubic yards of rock; W. A. Cooper, chairman Drainage Commissioners.

**Dredge.**—Gulf, Florida & Alabama Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, wants prices on dredge.

**Dredging.**—U. S. Engineer Office, Savannah, Ga. Proposals for dredging in harbor at Savannah, Ga., from Seaboard Air Line Railway bridge to foot of Kings Island, received until noon November 21. Information on application. Dan C. Klingman, Colonel, Engineers.

**Electrical Equipment.**—F. A. Guild, Box 402, West Palm Beach, Fla., wants to install electric plant for operating lights and electric service.

**Electrical Machinery.**—See "Pump."

**Elevator.**—Wheeler & Stern, Charlotte, N. C., want prices on electric elevator for four-story hotel at Salisbury, N. C.; speed 175 per minute, to travel four floors.

**Engines.**—Cahaba Central Coal Co. (I. B. Krentzman and associates), West Blocton, Ala., wants prices on engines.

**Feed Mills.**—Maryland Planting Co., Schlater, Miss., wants addresses of firms handling mills for grinding hay and straw for feed.

**Furniture.**—Traders' Supply Corporation, E. L. Dwelly, secretary, Buffalo, N. Y., wants furniture; wishes to correspond with Southern manufacturers.

**Foundry Equipment.**—Phillips Manufacturing Co., Francis V. Phillips, president, Orlando, Fla., will consider prices on equipment for small foundry.

**Gasoline Engine.**—See "Machine Tools."

**Gasoline Torch.**—W. G. Howard & Son, Box 94, Blackville, S. C., want gasoline torch for automobile repair shop; for heavy duty.

**Ginning Machinery.**—Craven Milling Co., Craven, N. C., wants prices on cotton gin.

**Glass.**—Riggs Bros., Moundsville, W. Va., want prices on canopy glass construction.

**Hardware.**—See "Merchandise."

**Heating Plant.**—Wheeler & Stern, Charlotte, N. C., will receive bids within next 30 days for steam-heating plant and overhead system for hotel at Salisbury, N. C.

**Heating Plant, etc.**—Bids invited for plumbing and heating by water and steam of two State reformatory buildings at Florence, S. C., specifying kinds of hot water and steam heating; apply to Wm. Elderton, chairman, by October 21 to examine prints for same.

**Heaters.**—Liberty Orchards Co., O. B. Burrell, president, Brookneal, Va., wants prices on orchard heaters.

**Hoists.**—Thomas Grate Bar Co., Tenth Ave. and 42d St., Birmingham, Ala., wants to correspond with manufacturers of individual electric hoists.

**Hose.**—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., T. J. Cowie, Paymaster-General, United States Navy, receives bids November 12 for 8000 feet air hose; schedule 4916; delivery Charleston, S. C.; for schedules apply navy pay office nearest navy-yard.

**Iron Columns.**—Fred Drungale, Fort Arthur, Tex., wants prices on girder and cast-iron columns.

**Laundry Machinery, etc.**—Walter Sparklin, Federalsburg, Md., wants to correspond with manufacturers of or dealers in laundry machinery and supplies.

**Laundry Machinery.**—Dr. R. M. Hardy, Kinston, N. C., wants prices on laundry machinery.

**Levee Construction.**—Plum Bayou Levee Board, N. B. Beakley, president, England, Ark., receives bids until noon November 4 for construction of about 80,000 cubic yards levee work in Plum Bayou levee district; information may be obtained by applying to R. B. Eggleston, chief engineer.

**Levee Construction.**—Executive department, Luther E. Hall, Governor, Baton Rouge, La., will construct Cornland levee on left bank of Mississippi River in St. John the Baptist parish; contents 35,000 cubic yards; deposit \$150; bids received October 22 at office of Board of State Engineers, 213 New Orleans Court Bldg., New Orleans.

**Lime-plant Equipment.**—Hughes Stone Co., Tulsa, Okla., wants prices on all necessary equipment for lime-burning plant at Garnett.

**Locomotives.**—Gulf, Florida & Alabama

ule 4915, paints, etc.; schedule 4917, mineral lubricating grease. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to navy pay office, Norfolk, Va., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

**Naval Supplies.**—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. November 12, then opened, to furnish at Navy-yard, Washington, D. C., etc., quantity of naval supplies as follows: Schedule 4896, bolts and nuts, steel and brass cotter pins, iron pipe fittings, elbow unions; schedule 4897, rubber gaskets, diphenylamine, sheet brass. Applications for proposals should designate the schedules desired by number. Blank proposals furnished upon application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

**Novelty Manufacturers.**—See "Merchandise."

**Patternmakers.**—See "Castings, etc."

**Paving.**—Charlotte, N. C. Proposals received by Executive Board until 8 P. M. October 30 for construction of about 52,781 square yards paving and Roman Road pavement; certified check 5 per cent. amount of bid; plans obtainable from City Engineer, Joseph Firth; A. H. Wearn, City Clerk.

**Paving.**—Bids received by city of McAlester, Okla., until 10 A. M. October 30 for work on C St., from Grand to Harrison Ave.; 8063.12 square yards 10-inch macadam; 6024.48 feet curb and gutter; 5806.05 cubic yards excavation; J. M. Gannaway, City Clerk.

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

We issue every Business Day in the Year

## THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

The Daily Bulletin is an exceptionally desirable advertising medium.

The subscription price is \$25.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, wants prices on five locomotives.

**Lumber.**—Wellman Lumber Co., 2 S. Water St., Providence, R. I., wants to correspond with manufacturers of lumber with view to representation.

**Lumber.**—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., T. J. Cowie, Paymaster-General, United States Navy, receives bids November 12 for 1000 feet white cedar and 25,000 feet yellow pine; schedule 4913; delivery Charleston, S. C.; for copies apply to navy pay office nearest navy-yard.

**Machine Tools.**—Jos. L. Pearson, Keyville, Va., wants new or second-hand tools for small machine and repair shop; use gasoline engine for power.

**Machinery.**—See "Merchandise."

**Merchandise.**—N. Aspinwall & Co., 40 Soparibag Road, Parel, Bombay, India, are interested in following and want to correspond with manufacturers: Iron and steel; metal and hardware; colors and paints; cement machinery; sundries; new American novelties.

**Metals.**—See "Merchandise."

**Naval Supplies.**—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. November 12, then opened, to furnish at Navy-yard, Norfolk, Va., quantity of naval supplies as follows: Schedule 4900, white-oak oars; schedule 4914, boat anchors; sched-

**Paving, etc.**—Constructing Quartermaster, Fort Sill, Okla., receives bids until 10 A. M. November 11 to construct roads, gutters, drains, etc.; information on application.

**Paving, etc.**—Executive Board of City of Charlotte, N. C., receives bids until 8 P. M. October 23 for grading and paving sidewalks on North Tryon St.; 1040 square yards concrete walk, 1200 cubic yards grading and removal of 56 trees; certified check 5 per cent. of bid; A. H. Wearn, City Clerk.

**Paving.**—T. H. Kennedy, City Clerk, Bonham, Tex., receives bids until 4 P. M. October 25 to construct about four blocks of Oklahoma rock-asphalt pavement with concrete curbs and gutters; \$35,000 available; certified check, \$200; plans and specifications on file with City Clerk or City Engineer; T. W. Ragsdale, Mayor; Preston C. Thurmond, City Engineer.

**Paving.**—City of Dade City, Fla., will let contract about December 1 for improvements to certain streets; J. P. Phinney, City Engineer.

**Paving.**—L. H. Baker, secretary-treasurer, Shreveport, La., receives bids until 10 A. M. October 29 to pave Herndon Ave. from Creswell to White St. and White St. from Herndon Ave. to Wilkinson St. with asphaltic concrete; specifications on file with City Engineer; certified check 5 per cent. of bid.

**Paving.**—City Council, Pikeville, Ky., receives bids until December 9 for 25,000 square yards street paving; work to be completed by December 1, 1913; can be let into two or

more contracts; for particulars address A. S. Reese, City Clerk; Stoney Amick, City Engineer.

**Piledrivers.**—Gulf, Florida & Alabama Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, wants prices on two piledrivers.

**Plumbing.**—Wheeler & Stern, Charlotte, N. C., want prices on plumbing for hotel at Salisbury, N. C.; 33 bathrooms; 45 individual lavatories.

**Printing Machinery.**—Tidewater Democrat, Tappahannock, Va., will open bids November 1 for printing machinery.

**Pulverizing Machinery.**—French Chemical Co., 1024 Poplar Grove St., Baltimore, Md., wants prices on sand pulverizing machinery.

**Pump.**—Bids for installation of deep-well pump, driven by electric motor, opened at State Charity Hospital, Jackson, Miss., November 5; well four-inch casing; capacity of pump 27 gallons per minute; specifications on request from Ben Price, architect, 519 Empire Bldg., Birmingham, Ala.

**Pumps.**—Cahaba Central Coal Co. (I. B. Krentzman and associates), West Blocton, Ala., wants prices on pumps.

**Rails.**—Mobile Chair Co., Mobile, Ala., wants five to eight tons 12-pound relay rail. Give prices f. o. b. factory, North Mobile.

**Railway Construction Material and Equipment.**—Louis F. Davison, 701 Commerce Bldg., Kansas City, Mo., wants second-hand street railway material of rolling stock, rails and poles.

**Reservoir Construction.**—Baltimore (Md.) Board of Awards receives bids at office of City Register, City Hall, until 11 A. M. November 6 for construction of two filtered water reservoirs at Lake Montebello; plans and specifications obtainable at office of Water Engineer, City Hall; charge of \$10 for each set of plans and specifications; certified check \$8000; approximate quantities, 55,700 cubic yards earth excavation; 52,400 cubic yards earth embankment; 11,800 cubic yards concrete; 91,000 pounds steel reinforcement; Ezra B. Whitman, president Water Board.

**Roadways.**—Proposals, endorsed "Proposals for Roadways," received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 A. M. November 2, then opened, for roadways at naval hospital reservation, Washington, D. C.; estimated cost \$8450; plans and specifications obtainable upon application to bureau. H. R. Stanford, Chief of Bureau.

**Road Construction.**—Supervisors' District No. 1, Clay county, receives bids at office of Chancery Clerk, West Point, Miss., until 2 P. M. November 8 for grading and surfacing about nine miles highway; plans and specifications in offices of above clerk and of district engineers; Smith & Hanser, engineers; A. Barkemeyer, D. M. Wilson and W. A. Montgomery.

**Road Construction.**—B. A. Fuson, County Judge, Pineville, Ky., receives bids until 11 A. M. November 6 for construction of road on Greasy Creek; width, 12 feet; drains and branches to be covered either by bridges or culverts.

**Road Construction.**—Proposals received by Samuel Patterson, Gonzales County Clerk, Gonzales, Tex., will be opened 3 P. M. November 15 for improving about 75 miles road; gravel surfacing, compacted by roller; bids for sand-clay work also considered; concrete used for culverts and smaller bridges; plans, profiles and specifications on file with county road engineers, Tips and Burchar, Gonzales; \$1000 certified check; W. B. Green, County Judge.

**Road Machinery and Supplies.**—Board of Revenue, Mobile county, Mobile, Ala., opens bids October 31 for following: Grader; 10-ton steam roller; 6 reversible hauling wagons, capacity three to four cubic yards; 2 two-horse grading plows; 6 No. 2 drag scrapers; 1 20x30 and 1 20x25 mule tents, with flies on north side; 2 18x24 tents for men, 12-ounce army ducks, double-filled and picked.

**Roofing, etc.**—Riggs Bros., Moundsville, W. Va., want prices on light green tile roofing and sheathing iron.

**Safe, etc.**—Title Guaranty & Trust Co., Lexington, Ky., wants prices on safe, vault and other bank fixtures.

**Safe, etc.**—Union Bank of Oxford, Oxford, N. C., wants prices on safe, vault and other bank fixtures, etc.; second-hand preferred.

**Sand.**—U. S. Engineer Office, Dallas, Tex. Proposals for furnishing sand for lock 7 and lock at White Rock Shoals, Trinity River, received until 12 M. November 14, then opened. Information on application. T. H. Jackson, Major, Engineers.



**Sawmill.**—Craven Milling Co., Craven, N. C., wants prices on sawmill complete.

**Sewage-disposal Plant.**—Board of Tuberculosis Hospital, L. J. Dittmar, president, 121 W. Chestnut St., Louisville, Ky., receives bids until noon October 28 to construct concrete sewage-disposal plant at Waverly Hill Sanatorium; plans and specifications may be obtained from secretary of board.

**Sewers.**—City of West Palm Beach, Fla., will open bids November 19 for laying 22,000 feet concrete sewer pipe, with manholes and septic tank; specifications on file with A. M. Lopez, clerk.

**Sewer Construction.**—Proposals received by City Secretary, City Hall, Waco, Tex., to be opened 10 A. M. November 12, for material and construction of Mary St. reinforced concrete storm sewer; about 2500 linear feet 6-foot, 365 feet 5-foot, 400 feet 4-foot, 600 feet 36-inch and 700 feet 30-inch, all inside diameter; \$2000 certified check; personal examination of premises requested, or bids not considered; specifications, profiles and plans ready at office of Geo. E. Byars, City Engineer, from October 26.

**Sewer Construction.**—Charlotte, N. C. Executive Board receives proposals until 8 P. M. October 30 for laying about 16 miles sewers and drains from 24 inches to 8 inches diameter; certified check 5 per cent. amount of bid; plans and specifications obtainable from Joseph Firth, City Engineer; A. H. Wearn, City Clerk.

**Sewer Construction.**—Office Commissioners, D. C. Proposals received until 2 P. M. November 1, 1912, for construction of sewers in District of Columbia. Forms of proposals, specifications and necessary information obtainable from Chief Clerk, Engineer Department, Room 427 District Bldg., Washington, D. C.

**Sewer Construction.**—Mayor and Board of Commissioners, Fort Worth, Tex., receive bids until 9 A. M. November 1 to construct 13th St. sewer from 9th and Jones Sts. to 13th and Throckmorton Sts., costing about \$18,000, and Houston drainage, 10th to Weatherford St., estimated cost \$5500; plans, specifications and forms of proposals may be had from J. J. Von Zuben, acting City Engineer, on deposit of \$10; certified check \$500; J. H. Maddox, Commissioner Streets and Public Property.

**Sewer Construction.**—L. H. Baker, secretary-treasurer, Shreveport, La., receives bids until 10 A. M. October 29 to construct 785 feet of storm sewer on Pierre Ave., with cement tiling; plans and specifications on file with City Engineer; certified check 10 per cent. of bid.

**Sewer System.**—City, Frank Ramus, Mayor, Arkansas City, Ark., wants information, etc., relative to installation of sewer system; population 2600.

**Silica Sand.**—French Chemical Co., 1024 Poplar Grove St., Baltimore, Md., wants prices on pulverized silica sand.

**Stairs.**—J. C. Diekmann, San Antonio, Tex., wants prices on marble stairs.

**Steam Shovel.**—Gulf, Florida & Alabama Railroad Co., Roy C. Megargel, president, 35 Pine St., New York, wants prices on steam shovel.

**Steel Cells.**—Pinellas county, Fla., wants steel cells for 12 persons. Address C. W. Wicking, Clerk Circuit Court, Clearwater, Fla.

**Stone.**—Bonfoey & Elliott, Tampa, Fla., want to correspond with firms handling stone.

**Stone.**—U. S. Engineer Office, Dallas, Tex. Proposals for furnishing one-man stone and crushed rock for lock 7 and lock at White Rock Shoals, Trinity River, received until 12 M. November 15, then opened. Information on application. T. H. Jackson, Major, Engineers.

**Structural Steel and Rivets.**—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 2:30 P. M. October 28 for furnishing above-mentioned articles. Blanks and general information relating to circular (No. 740-B) may be obtained from above office or offices of assistant purchasing agents at 24 State St., New York, and 614 Whitney-Central Bldg., New Orleans; also from U. S. Engineers offices in Pittsburgh, Chicago and St. Louis. F. C. Boggs, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**Tanks and Wagons.**—D. McB. Austin, Maxton, N. C., wants to correspond with manufacturers of tanks and wagons for gasoline storage and distribution.

**Tents.**—See "Road Machinery and Supplies."

**Textiles.**—J. Rivero & Co., Allen 77, Box 3, San Juan, P. R., want to correspond rela-

tive to agency for hosiery, underwear, dress goods, etc.

**Textiles.**—Ritter Manufacturing Co., W. W. Ritter, president, Norfolk, Va., wants prices on all widths of cotton flannel and husking cloth, 23 inches wide; also Jersey cloth of same width for making gloves and mittens.

**Traction Engines.**—Maryland Planting Co., Schlater, Miss., wants addresses of firms handling traction engines.

**Viaduct Construction.**—Mayor and Board of Aldermen, Fort Worth, Tex., receives bids until 9 A. M. October 22 to con-

struct reinforced concrete viaduct on Allen Ave.; plans, specifications and form of proposal may be had from F. J. von Zuben, acting City Engineer, on deposit of \$25; J. H. Maddox, Commissioner of Streets and Public Property; W. J. Estes, City Secretary.

**Water-works.**—City, Frank Ramus, Mayor, Arkansas City, Ark., wants information, etc., relative to water-works extension; population 2600.

**Woodworking Machinery.**—Tar River Lumber Co., Rocky Mount, N. C., wants two saw edgers for 8 to 12 capacity mill; good condition; give price and details.

## More Iron and More Railroads Is Country's Demand.

In 1857, when the world's iron production was not much more than the present annual output of the South, in an address before the ironmakers of England, Abram S. Hewitt undertook to draw aside the curtain that veils the mysteries of the future and forecast the production of iron for the next half century. Mr. Hewitt always regarded that forecast and its full verification as one of the most interesting facts connected with his lifework. At a time when iron was still so small a factor in human affairs he outlined its increasing importance and suggested an expanding rate of consumption which in time would bring about a demand for at least 40,000,000 tons by the world.

Mr. Hewitt suggested that, while the logic of the situation seemed to him to justify such a forecast, he realized that it was a very bold prediction to make and that he could not see where the world could provide the capital needed for the creation of so vast an industry, and yet he felt that in some way this capital would be found. A year or two before his death, in discussing the matter, I asked Mr. Hewitt to look 50 years ahead and give another prophecy of what the world would see in iron and steel production, but he said the task was too great, and that he hesitated to put into figures his own views as to the enormous expansion of the iron and steel industries of this and other lands.

He did say, however, and permitted the publication of this in 1900, referring to the fact that this country had become the leader in the world's iron and steel output, that "the supremacy has been permanently established in this country, and this means in the not very distant future the supremacy in shipbuilding and in all the interests based on coal and iron and steel. Its world-wide effect, its influence upon trade and transportation, upon commerce and finances of the world is beyond our power at present to fully grasp."

Mr. Hewitt saw with the vision of a prophet what the development of the iron and steel business in this country would ultimately mean, and rightly stated that it was beyond our power at present to fully measure the influence of this. In 1900, the year in which he made that statement, the production of pig-iron in this country was 13,700,000 tons. Notwithstanding the halting in material activities, in railroad building and in all construction work for three or four years following the panic of 1907, we are now producing iron at the rate of 29,000,000 to 30,000,000 tons, largely more than double the output of 1900. Through a long series of years the iron production of the country has increased about 100 per cent. every 10 years, fluctuating at times, some decades falling a little short and some running ahead of this average.

Looking to the future and recognizing that as the magnitude of business increases the rate of interest tends to de-

cline, it would hardly seem possible that in the next 10 or 12 years we should carry the 30,000,000-ton iron production of the present up to 60,000,000 tons, but this is hardly more unreasonable than the growth from 13,700,000 in 1900 to the 30,000,000-ton rate at which we are now running. Indeed, the accelerating rate of consumption per capita, the increase in population, the enlarged demand for iron and steel for building operations, the absolute necessity for a vast railroad expansion, which must come compelled by economic conditions, would seem to insure a rate of production during the next 10 or 15 years almost as startling in its magnitude as Mr. Hewitt's prediction in 1857 looked to the men who, then in amazement, marveled that any sane, conservative man would point to the time when the world would need 40,000,000 tons of iron. From every part of the country there come reports from shippers and from railroad people alike as to the increasing shortage in the transportation facilities of the country. It was clearly seen by far-sighted men, seven or eight years ago that this condition was inevitable unless the country undertook a very much broader railroad expansion than was then in sight.

James J. Hill rather startled the public, at least that portion of it which had not studied the subject, when he said that in 10 years the railroads would need to expend more than \$5,000,000,000 to keep up with the growing traffic of the country. Last week President Winchell of the Frisco made the statement that the railroads would need to expend at least \$8,500,000,000 within five years if they would provide facilities absolutely demanded by the growth of the country. The public today recognizes the truth of Mr. Winchell's statement, in which he added more than 50 per cent. to Mr. Hill's estimate and reduced the time by 50 per cent., more readily than it was willing five or six years ago to accept Mr. Hill's prediction.

When a vital question such as that of transportation is brought directly home to every man in America—to the farmer, the merchant, the manufacturer—from the freight point of view as well as from that of inadequate traveling facilities, sooner or later economic laws mightier in their force than legislative powers will produce the needed results. Demagogic agitation may for a time halt railroad expansion, as it has done during the last five years, but the people of the country cannot be fooled all the time, even though they may love to be fooled sometimes. Eventually they see the right course and follow it.

They are beginning now to see the necessity for a vast expansion of railroad upbuilding. They recognize the fact that the public as well as the railroads have been at fault; that neither the pot nor the kettle can afford to call the other

black. They are coming to see that their prosperity is dependent upon railroad prosperity, and that one cannot suffer without the other feeling the effect. Just now many of the manufacturers of the country are crowded with orders at profitable prices which they cannot fill because of the shortage of rolling stock. One large cement user has stated within the last few days that though he is located in a city reached by many lines, the shortage of cars is so great that he has been receiving cement in passenger cars as well as in cattle cars. This illustrates how the road handling the stuff has called into service every available car into which cement could be put.

To a considerable extent similar conditions are prevailing throughout a large part of the country. The upward trend of business, the sudden revival of manufacturing activity, which has come almost overnight is only at its beginning. Everywhere orders are being rushed to the iron and steel works, to the cement plants, to the sawmills and other interests so rapidly as to fully tax their capacity, and yet even at the beginning of this rising tide of business the railroads are unequal to the emergency. They foresaw the situation. For years the ablest men in the railroad world have been struggling to get ready for the present situation, which they saw was inevitable, but inability to secure capital made it impossible to extend their lines and increase their rolling stock on a scale commensurate with the growing wealth and trade of the country.

With a realization of this situation on the part of the people of the whole country, with a recognition that this railroad shortage is largely due to their inability to secure capital needed for expansion, there is a friendlier feeling to the railroads developing throughout the land. Or possibly it is not so much a friendlier feeling as it is a realization of the dependence of the public upon the railroads and a better understanding of the fact that the men who have been most active in antagonizing the railroads will not themselves put money into the building of new lines, nor have they yet found the way to compel a man to invest his money against his will in such operations.

The situation is distinctly clearer, and it is altogether probable that with this better understanding of the mutuality of interest between the public and the transportation interests new capital will be found both at home and abroad to help meet the needs of the day. If this new capital can be found in sufficient amount, it will necessarily bring about an era of greater railroad construction work than we have had for many years. This will be seen in the enlargement of facilities of existing lines in every part of the country, even in those sections already better supplied than others, in the double tracking of tens of thousands of miles where double tracking is so badly needed and the building of branch lines to open up new agricultural, mineral and timber regions, where traffic awaits the coming of transportation facilities.

If we enter upon such a railroad building period as this, a problem almost as serious as that of securing the capital will be that of providing the iron and steel needed. With but limited railroad building at present, the iron and steel plants of the country are running almost to their full capacity. Building operations are being delayed all over the country by the inability of the steel mills to provide construction materials. The few iron plants yet idle if put into operation will hardly much more than take the place of those

which from time to time must be shut down for repairs.

Between 1900 and 1912 our iron production advanced from 13,700,000 tons to nearly 30,000,000 tons, a gross increase of about 16,000,000 tons. A similar gross increase in the next 12 years would carry us forward to about 46,000,000 tons. Even this would not take into account the accelerating rate of consumption per capita and the increase in population, which in the next 12 years will run to about 18,000,000 or 20,000,000 people. Considering these conditions, it would seem conservative to say that within the next 12 years the country must certainly provide the facilities for producing 50,000,000 tons of pig-iron.

To those who have not studied the situation this may seem optimistic; to those who have studied the matter carefully it will seem to be a pessimistic estimate as to the growth of the next 12 years. Apparently the world has entered upon a period of very broad expansion in iron and steel. European works are crowded and American iron and steel makers are shipping pig-iron and steel rails and other finished products to foreign countries, and, it is stated, are getting from foreign buyers a higher price than the figures at which these products are now being sold in the United States. Especially is this said to be true of steel.

With existing plants, especially the steel plants, of the country taxed to their capacity, with the steel works of Europe crowded as they are with business, we have apparently entered upon a period in which business is largely ignoring political activities and expanding on an enormous scale despite the politicians.—*Editor Manufacturers Record in New York Sun.*

#### Facilities of Railroads Hampered.

Richard A. Steen, president the Weber Chimney Co., Chicago, writes to the MANUFACTURERS RECORD:

"Business in our line has been very satisfactory throughout this year. The supply of labor seems to be ample in the different parts of the country, based on our experience, and as to the facilities of the railroads to handle traffic promptly, would say there seems to be a great deal of delay, probably due to lack of proper equipment. We judge that the outlook for another year is good, unless there are difficulties arising from legislation affecting the tariffs, which is nearly always conducive to doubt and delay in most lines of manufacturing business, which, of course, would directly affect our business, as activity in building new plants and enlarging old ones is what our business is based on."

#### Public Utilities Purchased.

N. W. Halsey & Co. of New York are reported to have acquired gas, electric, water and ice plants at Abilene, Tex., heretofore operated by the Abilene Light & Water Co., the Abilene Gas Light, Fuel & Power Co. and the Abilene Ice Co. for \$600,000. It is said that \$100,000 will be spent for improvements.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

#### Review of the Baltimore Market.

Office MANUFACTURERS RECORD,  
Baltimore, Md., October 23.

The Baltimore stock market was distinguished during the past week by con-

siderable activity in Houston Oil certificates, which advanced several points. In the trading United Railways common sold from 25 $\frac{1}{2}$  to 26 $\frac{1}{2}$ ; do. income bonds, 86 to 86 $\frac{1}{2}$ ; do. funding 5s, 88 $\frac{1}{2}$  to 89; do. notes, 103 to 104; do. 4s, 84 $\frac{1}{2}$  to 84 $\frac{1}{2}$ ; Consolidated Gas Electric Light & Power common, 114 $\frac{1}{2}$ ; do. 4 $\frac{1}{2}$ s, 88 $\frac{1}{2}$  to 88 $\frac{1}{2}$ ; do. notes, 99 $\frac{1}{2}$ ; Consolidated Gas 4 $\frac{1}{2}$ s, 94 $\frac{1}{2}$  to 94 $\frac{1}{2}$ ; Seaboard Air Line common, 20 $\frac{1}{2}$  to 19; do. 4s, stamped, 86 $\frac{1}{2}$  to 86 $\frac{1}{2}$ ; Mt. Vernon-Woodberry Cotton Duck 5s, 73 $\frac{1}{2}$  to 73 $\frac{1}{2}$ ; G.-B.-S. Brewing common, 4; do. income bonds, 13 $\frac{1}{2}$  to 13; do. 4s, 52 to 52 $\frac{1}{2}$ .

Citizens' Bank sold from 43 to 42 $\frac{1}{2}$ ; Bank of Baltimore, 165 $\frac{1}{2}$ ; Maryland Casualty, 102; Fidelity & Deposit, 151 to 150 $\frac{1}{2}$ ; Baltimore Trust, 159 to 160; Mercantile Trust, 155; American Bonding, 76 $\frac{1}{2}$ .

Other securities were traded in thus: Houston Oil common, trust certificates, 19 $\frac{1}{2}$  to 24 $\frac{1}{2}$ , with last sale at 22 $\frac{1}{2}$ ; do. preferred do., 68 to 70 $\frac{1}{2}$ , with last sale at 68 $\frac{1}{2}$ ; do. dividend certificates, 84 to 85 $\frac{1}{2}$ ; Fairmont & Clarksburg Traction 5s, 100 $\frac{1}{2}$  to 100 $\frac{1}{2}$ ; Norfolk Railway & Light common, 27 $\frac{1}{2}$ ; do. 5s, 100 to 100 $\frac{1}{2}$ ; Pennsylvania Water & Power common, 70 to 72 $\frac{1}{2}$ , with last sale at 71 $\frac{1}{2}$ ; do. 5s, 91 $\frac{1}{2}$  to 92 $\frac{1}{2}$ ; Atlantic Coast Line convertible debenture 4s, 102 $\frac{1}{2}$  to 103 $\frac{1}{2}$ ; do. Connecticut stock, 272 $\frac{1}{2}$  to 273; Atlantic Coast Line rights, when issued, 3 $\frac{1}{2}$  to 3 $\frac{1}{2}$ ; do. Consolidated 4s, 94 $\frac{1}{2}$ ; International & Great Northern Corporation, 56; Washington, Baltimore & Annapolis preferred, 34 $\frac{1}{2}$ ; Danville Traction & Power 5s, 91 $\frac{1}{2}$  to 92; Anacostia & Potomac 5s, 100; do. guaranteed, 102; Baltimore Electric 5s, stamped, 97 $\frac{1}{2}$  to 97; do. preferred stock, 43 $\frac{1}{2}$  to 43 $\frac{1}{2}$ ; Chicago Railways 5s, 100; Georgia & Alabama Consolidated 5s, 105 $\frac{1}{2}$  to 105; Baltimore City 4s, 1951, 97; do. 3 $\frac{1}{2}$ s, 1980, 86 $\frac{1}{2}$ ; do. 4s, 1960, 97 $\frac{1}{2}$ ; Consolidation Coal, 103 $\frac{1}{2}$ ; do. refunding 5s, 93 to 92 $\frac{1}{2}$ ; Milwaukee Refunding 4 $\frac{1}{2}$ s, 95 $\frac{1}{2}$ ; Northern Central Railway stock, 125 to 124; Maryland Electric 5s, 98 to 98 $\frac{1}{2}$ ; Gary & Interurban collateral trust notes, 6s, 98 $\frac{1}{2}$ ; Baltimore, Sparrows Point & Chesapeake 4 $\frac{1}{2}$ s, 95 $\frac{1}{2}$ ; Virginia deferred, Brown Bros. certificates, 59 to 59 $\frac{1}{2}$ ; New Orleans, Mobile & Chicago 5s, 88 $\frac{1}{2}$  to 88 $\frac{1}{2}$ ; Norfolk & Portsmouth Traction 5s, 89 $\frac{1}{2}$  to 90; City & Suburban (Washington) 5s, 103; Georgia, Carolina & Northern 5s, 105; Virginia Railway & Power common, 54; Carolina Central 4s, 91 $\frac{1}{2}$ ; Atlanta Consolidated Street Railway 5s, 104 $\frac{1}{2}$ ; Maryland & Pennsylvania common, 42 to 42 $\frac{1}{2}$ ; Milwaukee Electric 5s, 104 $\frac{1}{2}$ ; Portland Railway 1st and refunding 5s, 101 $\frac{1}{2}$ ; Minneapolis & St. Paul joint 5s, 103 $\frac{1}{2}$ ; Detroit United 4 $\frac{1}{2}$ s, 76 $\frac{1}{2}$ .

#### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended  
October 23, 1912.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	100	140
At. Coast Conv. Debent. 4s.....	100	270	271 $\frac{1}{2}$
Ch. South. & Fla. 2d Pfd.....	100	82	83 $\frac{1}{2}$
Maryland & Penna.....	100	43	43
Monongahela V. T. Pfd.....	100	80	82 $\frac{1}{2}$
Seaboard Com.....	100	18 $\frac{1}{2}$	18 $\frac{1}{2}$
Seaboard Pfd.....	100	48 $\frac{1}{2}$	48 $\frac{1}{2}$
United Ry. & Elec. Co.....	50	26	26 $\frac{1}{2}$
Virginia R. & P. Com.....	100	53	54
Wash., Balto. & Annap. Pfd.....	100	35	35
Western Maryland.....	100	55	55
Bank Stocks.			
Bank of Baltimore.....	100	165 $\frac{1}{2}$	165 $\frac{1}{2}$
Drovers & Mechanics.....	100	210	210
German.....	100	107	107
Maryland.....	20	24	24
Merchants.....	100	181	181
Union.....	100	135	135
Western.....	20	37	37
Trust, Fidelity and Casualty Stocks.			
American Bonding.....	25	76 $\frac{1}{2}$	77 $\frac{1}{2}$
Baltimore Trust.....	100	159 $\frac{1}{2}$	162
Fidelity & Deposit.....	50	150	151
Maryland Casualty.....	25	102 $\frac{1}{2}$	102 $\frac{1}{2}$
Maryland Trust.....	100	121	121
Maryland Trust Pfd.....	100	121	123 $\frac{1}{2}$
Merc. Trust & Dep.....	50	154	157 $\frac{1}{2}$
Union Trust.....	50	67 $\frac{1}{2}$	67 $\frac{1}{2}$

#### Miscellaneous Stocks.

Baltimore Brick Pfd.....	100	20	20
Canton Co., Baltimore.....	100	125	137
Con. Gas, Elec. Lt. & P. Com.....	100	114	115
Con. Gas, Elec. Lt. & P. Pfd.....	100	110	112
Consolidation Coal.....	100	103 $\frac{1}{2}$	104
G.-B.-S. Brewing Co.....	100	4	4 $\frac{1}{2}$
Mer. & Min. Trans. Co., V. T. 100	100	79 $\frac{1}{2}$	79 $\frac{1}{2}$

#### Railroad Bonds.

Atlantic Coast 1st 4s.....	94 $\frac{1}{2}$	94 $\frac{1}{2}$	94 $\frac{1}{2}$
At. Coast Conv. Debent. 4s.....	103 $\frac{1}{2}$	103 $\frac{1}{2}$	103 $\frac{1}{2}$
At. Coast Conv. 4s, Cfs., 5-20s.....	92	92 $\frac{1}{2}$	92 $\frac{1}{2}$
At. Coast Conv. 5s, Cfs.....	103 $\frac{1}{2}$	103 $\frac{1}{2}$	103 $\frac{1}{2}$
At. Coast Unified 4s.....	88 $\frac{1}{2}$	88 $\frac{1}{2}$	88 $\frac{1}{2}$
At. Coast S. C. 4s.....	95	95	95
Carolina Central 4s.....	91 $\frac{1}{2}$	91 $\frac{1}{2}$	91 $\frac{1}{2}$
Charleston & West. Car. 5s.....	104 $\frac{1}{2}$	104 $\frac{1}{2}$	104 $\frac{1}{2}$
Georgia & Alabama 5s.....	105	105 $\frac{1}{2}$	105 $\frac{1}{2}$
Georgia & Florida 5s.....	65	70	70
Georgia, Car. & North. 1st 5s.....	104 $\frac{1}{2}$	105 $\frac{1}{2}$	105 $\frac{1}{2}$
Georgia Pacific 1st 6s.....	109 $\frac{1}{2}$	109 $\frac{1}{2}$	109 $\frac{1}{2}$
Macon, Dublin & Savannah 5s.....	98 $\frac{1}{2}$	99 $\frac{1}{2}$	99 $\frac{1}{2}$
New Orleans Great Northern 5s.....	68	71	71
New Orleans, M. & C. 5s.....	87 $\frac{1}{2}$	87 $\frac{1}{2}$	87 $\frac{1}{2}$
Potomac Valley 1st 5s.....	107 $\frac{1}{2}$	107 $\frac{1}{2}$	107 $\frac{1}{2}$
Raleigh & Gaston 5s.....	108	108	108
Savannah, Fla. & West. 5s.....	111	111	111
Seaboard Air Line 4s.....	85 $\frac{1}{2}$	85 $\frac{1}{2}$	85 $\frac{1}{2}$
Seaboard 4s, Stamped.....	85 $\frac{1}{2}$	86 $\frac{1}{2}$	86 $\frac{1}{2}$
Seaboard Adjustment 5s.....	74 $\frac{1}{2}$	74 $\frac{1}{2}$	74 $\frac{1}{2}$
Seaboard & Roanoke 5s.....	104	105	105
South Bound 5s.....	108 $\frac{1}{2}$	108 $\frac{1}{2}$	108 $\frac{1}{2}$
Virginia Midland 2d 6s.....	105 $\frac{1}{2}$	105 $\frac{1}{2}$	105 $\frac{1}{2}$
Western N. C. Con. 6s.....	102 $\frac{1}{2}$	102 $\frac{1}{2}$	102 $\frac{1}{2}$
Wash., Balto. & Annap. 5s.....	89 $\frac{1}{2}$	89 $\frac{1}{2}$	89 $\frac{1}{2}$

#### Street Railway Bonds.

Anacostia & Potomac 5s.....	100	100 $\frac{1}{2}$	100 $\frac{1}{2}$
Atlanta Con. Street Railway 5s.....	104 $\frac{1}{2}$	105	105
Balto., Sp. Pt. & C. 4 $\frac{1}{2}$ s.....	95 $\frac{1}{2}$	95 $\frac{1}{2}$	95 $\frac{1}{2}$
Baltimore Traction 1st 5s.....	106 $\frac{1}{2}$	106 $\frac{1}{2}$	106 $\frac{1}{2}$
Danville Traction 5s.....	92	92 $\frac{1}{2}$	92 $\frac{1}{2}$
Chattanooga Electric 5s.....	100	101 $\frac{1}{2}$	101 $\frac{1}{2}$
City & Suburban 5s (Wash.).....	103	103 $\frac{1}{2}$	103 $\frac{1}{2}$
Fairmont & Clarksburg Trac. 5s.....	100	100 $\frac{1}{2}$	100 $\frac{1}{2}$
Knoxville Traction 5s.....	105	106	106
Lexington Railway 1st 5s.....	93 $\frac{1}{2}$	95	95
Macon Railway & Light 5s.....	98 $\frac{1}{2}$	98 $\frac{1}{2}$	98 $\frac{1}{2}$
Maryland Electric Railways 5s.....	97	98 $\frac{1}{2}$	98 $\frac{1}{2}$
Memphis Street Railway 5s.....	97	97	97
Newport News & Old Pt. 5s.....	90	90	90
Norfolk & Portsmouth Trac. 5s.....	90	90 $\frac{1}{2}$	90 $\frac{1}{2}$
Norfolk Railway & Light 5s.....	100	100 $\frac{1}{2}$	100 $\frac{1}{2}$
Norfolk Street Railway 5s.....	106 $\frac{1}{2}$	108	108
Norfolk & Atlantic Terminal 5s.....	92	94	94
United Railways 1st 4s.....	84 $\frac{1}{2}$	84 $\frac{1}{2}$	84 $\frac{1}{2}$
United Railways Income 4s.....	66	66 $\frac{1}{2}$	66 $\frac{1}{2}$
United Railways Funding 5s.....	88 $\frac{1}{2}$	88 $\frac{1}{2}$	88 $\frac{1}{2}$
United Railways Notes.....	104	104 $\frac{1}{2}$	104 $\frac{1}{2}$
Virginia R. & P. 5s.....	95 $\frac{1}{2}$	96	96

#### Miscellaneous Bonds.

Alabama Con. Coal & Iron 5s.....	77 $\frac{1}{2}$	80	80
Baltimore Electric 5s, Stp.....	96 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{1}{2}$
Consolidated Gas 5s.....	94 $\frac{1}{2}$	95	95
Consolidated Gas 4 $\frac{1}{2}$ s.....	94 $\frac{1}{2}$	95	95
Con. Gas, Elec. Lt. & P. 4 $\frac{1}{2}$ s.....	88 $\frac{1}{2}$	88 $\frac{1}{2}$	88 $\frac{1}{2}$
Con. Gas, Elec. Lt. & P. Notes.....	98 $\frac{1}{2}$	100	100
Consolidation Coal Ref. 5s.....	92 $\frac{1}{2}$	93	93
Fairmont Coal 1st 5s.....	96	96 $\frac{1}{2}$	96 $\frac{1}{2}$
G.-B.-S. Brewing 1st 4s.....	51 $\frac{1}{2}$	52 $\frac{1}{2}$	52 $\frac{1}{2}$
G.-B.-S. Brewing Income 5s.....	12 $\frac{1}{2}$	13 $\frac{1}{2}$	13 $\frac{1}{2}$
Mt. Vernon-Woodberry Cotton Duck 5s.....	73 $\frac{1}{2}$	74	74
United Elec. Lt. & P. 4 $\frac{1}{2}$ s.....	93	93	93

#### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, 55 Bartonburg, S. C., for Week Ending October 21.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	70	75
Aiken Mfg. Co. (S. C.).....	75	75
American Spinning Co. (S. C.).....	153	153
Anderson Cotton Mills (S. C.).....	48	48
Anderson Cot. Mills (S. C.) Pfd.....	105	105
Arcadia Mills (S. C.).....	90	90
Arkwright Cotton Mills (S. C.).....	99	100
Belton Mills (S. C.).....	100	110
Brandon Mills (S. C.).....	90	90
Bronson Mills (S. C.).....	90	90
Chiquola Mfg. Co. (S. C.).....	160	160
Clifton Mfg. Co. (S. C.) Pfd.....	97	97
Clinton Cotton Mills (S. C.).....	120	120
Courtney Mfg. Co. (S. C.).....	83	83
Dallas Mfg. Co. (Ala.).....	90	90
D. E. Converse Co. (S. C.).....	78	78
Drayton Mills (S. C.).....	90	90
Eagle & Phenix Mills (Ga.).....	104	104
Eastley Cotton Mills (S. C.).....	162	175
Enoree Mfg. Co. (S. C.).....	25	40
Enoree Mfg. Co. (S. C.) Pfd.....	85	100
Gaffney Mfg. Co. (S. C.).....	72	75
Galveston Cotton Mills (Ga.).....	72	80
Glenwood Cotton Mills (S. C.).....	130	140
Greenville Mfg. Co. (S. C.).....	135	145
Greenwood Cotton Mills (S. C.).....	67	60
Grendel Mills (S. C.).....	90	100
Hartsville Cotton Mill (S. C.).....	160	160
Henrietta Mills (N. C.).....	160	175
Inman Mills (S. C.).....	90	100
King Mfg. Co., J. P. (Ga.).....	90	95
Lancaster Cotton Mills (S. C.).....	130	130
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	75	75
Laurens Mills (S. C.).....	125	135
Limestone Mills (S. C.).....	155	160
Lockhart Mills (S. C.).....	60	60
Lockhart Mills (S. C.) Pfd.....	90	100
Loray Cotton Mills (N. C.) Pfd.....	90	90
Mariboro Cotton Mills (S. C.).....	75	75
Mills Mfg. Co. (S. C.).....	90	102
Molokan Mfg. Co. (S. C.).....	90	90
Monarch Cotton Mills (S. C.).....	110	110
Newberry Cotton Mills (S. C.).....	125	130
Ninety-Six Cotton Mills (S. C.).....	130	130
Norris Cotton Mills (S. C.).....	115	115
Orr Cotton Mills (S. C.).....	90	93
Pacolet Mfg. Co. (S. C.).....	94	94
Pacolet Mfg. Co. (S. C.) Pfd.....	95	100
Parker Common.....	20	20
Parker Pfd.....	63	63
Pelzer Mfg. Co. (S. C.).....	120	120
Poe Mfg. Co., P. W. (S. C.).....	115	115
Saxon Mills (S. C.).....	130	130
Spartan Mills (S. C.).....	110	125
Trion Mfg. Co. (Ga.).....	130	130
Tucapau Mills (S. C.).....	300	350
Union-Buffalo (S. C.) 1st Pfd.....	60	60
Union-Buffalo (S. C.) 2d Pfd.....	15	15
Victor Mfg. Co. (S. C.).....	110	115
Warren Mfg. Co. (S. C.).....	80	90
Warren Mfg. Co. (S. C.) Pfd.....	100	105
Washington Mills (Va.).....	28	28
Washington Mills (Va.) Pfd.....	104	110
Watts Mills (S. C.).....	70	70
Wicacasset Mills (N. C.).....	135	135
Whitney Mfg. Co. (S. C.).....	110	110
Williamston Mills (S. C.).....	130	135

Woodruff Cotton Mills (S. C.).... 94 100  
Woodside Cotton Mills (S. C.).... 100

#### To Finance Southern Enterprises.

Announcement is made of the organization of Lombard & Co., a new financial house, with headquarters in Atlanta, and with capital of \$500,000. The president is T. R. Lombard, formerly of New York; the vice-president and treasurer is Charlton G. Ogburn, and the other officers and directors comprise several other business men of Atlanta and New York. This new house purposes to conduct an institution, with ample resources, locally controlled, and standing ready to offer its facilities for the development of meritorious investment propositions, industrial and agricultural, but which are too small to be taken to large Eastern houses. It will, therefore, lend its services for obtaining capital for the creation of new enterprises or the enlargement of old. It offers a ready market for the bonds of corporations, municipal, public utility, industrial and realty, and a similar market for the mortgages of farmers desiring more funds. Its New York office is at 29 Broadway. The Atlanta office is 1104-5 and 6 Third National Bank Building.

#### FINANCIAL CORPORATIONS.



### The Merchants National Bank

Established 1835  
South and Water Sts., BALTIMORE, MD.  
DOUGLAS H. GORDON, President.  
WM. T. LITTLE, Vice-President and Cashier.  
J. C. WANDS, Asst. Cashier.  
JOHN B. H. DUNN, Asst. Cashier.  
Capital \$1,500,000  
Surplus and Profits \$900,000  
Deposits \$12,000,000  
Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

### THE FIRST NATIONAL BANK OF KEY WEST, FLA.

United States Depository and Disbursing Agent.  
Capital \$100,000  
Surplus and Undivided Profits \$40,000  
A general banking business transacted. Special attention given to collections.

### INVESTMENT SECURITIES

Southern Stocks and Bonds  
Municipal and Corporation  
Cotton Mill Stock a Specialty  
WM. S. GLENN, Broker, SPARTANBURG, S. C.

### JOHN NUVEEN & CO.

1st Nat. Bank Bldg., CHICAGO  
We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
Write us if you have bonds for sale.

### Delaware Trust Company

WILMINGTON, DELAWARE  
INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.  
BANKING AND TRUST department gives special attention to out of town customers' accounts.  
TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.  
REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.

EDWARD T. CANBY, President.  
J. ERNEST SMITH, V.-Pres. and Gen. Counsel.  
WM. G. TAYLOR, Treasurer.  
HARRY W. DAVIS, Secretary.  
W. W. PUSEY, 2d Title and Real Estate Officer.

H. B. Wilcox, President. Blanchard Randall, V.-Pres.  
Wm. S. Hammond, Cashier.  
Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

### The First National Bank

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Capital \$1,000,000  
Surplus and Net Profits 400,000  
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Hopkins Place, German and Liberty Sts.  
Capital, \$1,000,000  
July 15, 1908, Surplus and Profits, \$671,631.60

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Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

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OF MARYLAND  
Home Office, - - BALTIMORE, MD.  
Total Assets Dec. 31, 1911, \$8,133,000.57

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Becomes Surety on bonds of every description.

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Specialists in Steam R. R. Securities  
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CAPITAL AND SURPLUS - - - - - \$3,500,000

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Solicits Accounts of Banks, Bankers, Corporations and Individuals.  
Interest Allowed on Deposits Subject to Check.  
Special Rates Made on Time Deposits.

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DEPOSITS DEC. 31, 1910..... 8,809,843.00  
DEPOSITS DEC. 31, 1911..... 10,344,570.57

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Acts as Financial Agent for Municipalities and Corporations.

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CAPITAL - \$1,500,000.00 SURPLUS - \$3,000,000.00

capital; W. S. Ryall, president; C. F. O'Daniel of Lakeland is cashier.

Fla., Bartow.—Reported chartered: Security & Abstract Co. of Bartow; capital \$15,000. E. L. Haskins, president; R. B. Huffaker, vice-president; L. J. Clyatt, secretary; H. W. Smith, treasurer.

Fla., St. Augustine.—Official: The St. Johns County Abstract Co., capital \$15,000, is a corporation formed to take over the abstract business conducted for seven years by W. Dewhurst. Mr. Dewhurst is president of the new company and DeWitt C. Reed secretary and treasurer. A recent item gave the name as the St. Johns Abstract Co.

Fla., West Palm Beach.—The Palm Beach County Building and Loan Association of Palm Beach County is reported incorporated with \$25,000 capital. W. H. DaCamora, president.

Ga., Atlanta.—The Southern Securities Co., capital \$250,000, is reported chartered under Delaware laws by A. W. Smith, Victor L. Smith, both of Augusta, and James L. Wolcott.

Ga., Ocala.—John A. Sims of Augusta is reported organizing a new bank with \$25,000 capital.

Ga., Trion.—The Bank of Trion is reported chartered; capital \$25,000; incorporators, John D. Taylor of Summerville, Ga.; Benjamin D. Rieger of New York city and C. B. Caperton of Trion.

Ky., Lexington.—Official: The Title Guarantee & Trust Co. incorporated; capital \$150,000. Business is to begin November 1. Directors, Samuel M. Wilson, John R. Allen, Gilmer Pryon, Wm. H. Porter, S. H. Halley, John T. Denton, J. E. Hulett, O. H. Chennault, W. B. Brock, C. B. Ross, John Gund, Wm. A. McDowell, F. W. Bacon, R. D. Norwood, Thos. A. Combs, Chas. H. Berryman and K. G. Pullian.

Miss., Meadville.—Official: The Bank of Franklin incorporated; capital \$20,000. Directors: F. F. Becker, president, Brookhaven, Miss.; F. L. Peck, vice-president, Scranton, Pa.; Lewis T. Drane, cashier. Business began October 14.

Mo., Jefferson City.—The Cole County Bank, capital \$25,000, is reported organized by Joseph Pope, William F. Winkelmann, J. F. Moerschel, John W. Fisher, Henry Dulle, Emile J. Dirck, A. H. Globe, George Bartholomaeus and W. A. Dulle.

Mo., Springfield.—The Woodruff Trust Co., capital \$200,000, is reported incorporated; directors, John T. Woodruff, Roy Cox, Lewis Luster, W. L. Garrett and F. E. Miller.

N. C., McDonalds.—The Bank of McDonalds is reported chartered; capital \$25,000; incorporators, L. R. Hamer, J. L. Townsend and others.

N. C., Oxford.—Official: The Union Bank of Oxford chartered; authorized capital \$100,000; incorporators, J. S. Bradsher, Roxboro, N. C.; W. L. Peace, J. D. Brooks, L. F. Perkinson, all of Oxford, N. C. Business is expected to begin within 90 days. Address all communications to Mr. Peace or Union Bank of Oxford.

N. C., Oxford.—The Union Bank is reported chartered; capital \$100,000. Incorporators: W. L. Peace, J. S. Bradsher, J. D. Brooks and L. F. Perkinson, all of Oxford.

Okla., Hennessey.—Reported chartered: Hennessey State Bank, capital \$25,000. Directors, Fred Ehler, Hennessey; M. A. Mitchell, Dover; C. D. Hart, T. H. Staggs, and G. I. Crawford, all of Hennessey.

Okla., Washington.—Official: The First National Bank chartered; capital \$25,000; incorporators, C. M. Halliday, Washington; Chas. Louer, Norman; R. I. Ellinger, C. F. Wantland and Thos. Standifer of Noble. Business began October 12.

S. C., Charleston.—The Clima Building and Loan Association is reported to have been granted a commission; capital \$150,000. Petitioners: R. G. Rhett, T. T. Hyde and William M. Parker.

S. C., Columbia.—The People's Trust Co., capital \$25,000, is reported to have elected directors thus: President, Jas. A. Hoyt; vice-president, W. J. Conway; secretary and treasurer, A. S. Manning; L. C. Lipscomb, A. B. Langley, Wm. Platt, D. G. McAllister, H. N. Edmunds, J. D. Miot and W. E. Heintsh.

S. C., Columbia.—Official: The People's Trust Co. chartered; capital \$25,000. Jas. A. Hoyt, president; W. J. Conway, vice-president; A. S. Manning, secretary and treasurer. Executive committee, Jas. A. Hoyt, W. J. Conway and Jos. D. Miot. Business is to begin at once.

S. C., Lydia.—The Bank of Lydia incorporated; capital \$10,000; directors, D. T. Mc-

Keithan, president; B. S. Josey, vice-president; A. Hyman, W. L. Oates, C. T. Howie and C. A. Smith. W. W. Davis is cashier.

S. C., Mt. Croghan.—Official: The Bank of Ruby and Mt. Croghan is chartered; capital \$25,000. R. E. Rivers, president, Chesterfield, S. C.; G. W. Duvall, vice-president, Cheraw, S. C., and W. L. Raley, cashier, Ruby, S. C. Business is to begin about November 6. The new bank represents a consolidation of the Bank of Ruby, at Ruby, S. C., and the Bank of Mt. Croghan.

S. C., Sandy Springs.—The Bank of Sandy Springs is reported chartered with \$20,000 capital; B. F. Mauldin, president; Fred Patterson, cashier.

Tenn., Memphis.—The Aegis Trust Co. is reported chartered; capital \$100,000; incorporators, S. Smith, C. P. McElheney, E. S. Hell, H. Maynard and A. B. Swain.

Tex., Houston.—Reported chartered: Houston Securities Co. of Houston; capital \$100,000; incorporators, Leonard W. Martyr, Thos W. Martyr and W. Joe Oliver.

Tex., Mt. Pleasant.—The Guaranty State Bank of Mt. Selman, capital \$10,000, is reported organized with C. T. Burton, president; J. S. Brooks, vice-president; W. H. Ferguson, cashier; directors, Hood Melton, C. P. Linder, Johnnie Gardner, T. L. Wade, Dr. J. N. Bone, R. R. Warren, J. B. Rowe and J. G. Malcome.

Tenn., Watertown.—The Citizens' Bank of Watertown is reported chartered; capital \$20,000; incorporators, J. F. Ray, L. A. Phillips, A. A. McNabb, W. M. Lichford and J. C. Phillips.

Tex., Liberty Hill.—The First State Bank of Liberty Hill is reported chartered; capital \$10,000. Incorporators, S. P. Morgan, J. S. Ratliff and C. Mankin.

Tex., Port Arthur.—The Home Trust Co. is reported being organized with \$50,000 capital by Charles G. Gates, R. H. Woodworth, Travis Lambert, W. N. McReynolds and J. W. Williams.

Tex., San Antonio.—The Fidelity Loan Co., capital \$50,000, is reported chartered; incorporators and directors, J. J. Stevens, S. H. Weis, Hugo Kaufmann, Roy Campbell and E. D. Henry, all of San Antonio.

Va., Milford.—A new bank is reported established with the following officers: Dr. E. C. Cobb, president; G. P. Smith and Walter Harrison, vice-presidents, and L. T. Rock, Jr., cashier.

Va., Riner.—The Bank of Riner is reported incorporated; capital \$12,500 to \$25,000; G. D. Surface, president; L. Lawrence, vice-president; G. T. Surface, cashier and secretary.

#### NEW SECURITIES.

Ala., Fort Payne.—Official: An election is to be held November 5 to vote on \$165,000 of 4 per cent. 10-30-year DeKalb county road-building bonds; denomination \$500. Address Jas. A. Croley, Fort Payne.

Ala., Selma.—The American Finance & Bond Co. is reported to have purchased \$25,000 of school bonds.

Fla., Clearwater.—Farson, Son & Co. of Chicago are reported to have purchased \$40,000 of 5 per cent. 20-year street-paving, pier and park loan bonds at 98. R. T. Daniel is Town Clerk.

Fla., Dade City.—Official: Bids will be opened on December 1 for \$15,000 of 5 per cent. 30-year school building and street-improvement bonds; denomination \$500. Address City Council.

Fla., Fort Lauderdale.—Ulen & Co., bankers, Chicago, Ill., are reported to have been awarded \$40,000 of water-works, sewer and street improvement 6 per cent. 20-year bonds. William H. Marshall is Mayor.

Fla., Jacksonville.—January 21 an election is to be held to vote on \$1,500,000 of municipal dock bonds.

Fla., Milton.—Reported defeated: Santa Rosa county bridge bonds.

Fla., Plant City.—November 2, it is reported, an election is to be held to vote on \$25,000 of paving, \$25,000 of sewer, \$12,000 of funding, \$5000 of drainage and \$5000 of city hall improvement bonds.

Fla., Quincy.—The Quincy State Bank of Quincy is reported to have been awarded at 102 the \$60,000 of 5 per cent. 20-year Gadsden county courthouse bonds.

Fla., Sarasota.—Official: October 30 election will be held to vote on \$55,000 of municipal improvement bonds. Harry L. Higel is Mayor.

Fla., Tampa.—Bids are to be opened on November 12, it is reported, for \$1,700,000 of city improvement bonds.

Ga., Americus.—An election is to be held,

it is reported, to vote on \$45,000 of school bonds.

Ga., Byromville.—Official: \$10,000 of 6 per cent. bonds have been voted and sold at a premium of \$300, buyer to pay incidental expenses, such as printing of bonds, etc.

Ga., Douglasville.—Official: Bids will be opened on December 1 for \$20,000 of 5 per cent. 30-year electric-light and water improvement bonds; dated January 1, 1913; maturity January 1, 1943; denomination \$1000; R. E. Edwards is Mayor.

Ga., Waycross.—The question of issuing \$200,000 of Ware county road-improvement bonds is reported being agitated.

Ky., Lexington.—An ordinance has been prepared authorizing the sale of \$11,362.77 of street-improvement bonds; dated August 23, 1912. J. E. Cassidy is Mayor and Jas. J. O'Brien City Clerk.

La., Abbeville.—December 3, it is reported, an election is to be held to vote on \$50,000 of railroad-aid bonds.

La., Dubach.—The Ruston State Bank, Ruston, is reported to have been awarded at par \$15,000 of 5 per cent. building bonds of Dubach School District No. 5.

La., Homer.—An election is to be held, it is reported, to vote on \$40,000 of Homer school district building bonds.

La., Vivian.—An election will probably be held, it is reported, to vote on water and light bonds.

Md., Cumberland.—Bids will be received until 10 A. M. October 30 for \$10,000 of 5 per cent. Allegany county road-improvement bonds; denomination \$500; dated November 1, 1912; maturity May 1, 1915. Address Angus Ireland, County Clerk.

Md., Rising Sun.—Official: Chas. S. Pyle, president Commissioners of Rising Sun, denies report that town has voted bonds. He says: "If we are successful in having a water and light plant installed, the corporation owning and operating the plant will probably issue bonds."

Miss., Meridian.—Reported that \$75,000 of city hall building bonds were recently authorized.

Miss., Pheba.—Bids will be received until 3 P. M. October 26, it is reported, by E. E. Petty, Town Clerk, for \$4000 of 6 per cent. school bonds.

Miss., Poplarville.—An election is to be held in Pearl River county, it is reported, to vote on \$25,000 of road bonds.

Miss., Sunflower.—The William R. Compton Company, St. Louis, is reported to have purchased \$63,000 of 1-20-year drainage district bonds.

Miss., Winona.—Bids will be received until noon November 6 by J. T. Parks, clerk Board of Supervisors, for \$40,000 of 5½ per cent. First Supervisors' District, Montgomery county road bonds.

Mo., Benton.—Official: W. H. Heisserer of Benton purchased for Toledo parties on October 9, at par, accrued interest and \$1525

premium, \$76,000 of 6 per cent. bonds of Drainage District No. 10, Scott county; denomination \$500; dated September 4, 1912; maturity 1932. Albert De Reign is attorney for the district.

Mo., Independence.—Local banks are reported to have purchased at par \$75,000 of 5 per cent. 1-20-year school bonds.

Mo., Kansas City.—The election to vote on \$2,100,000 of improvement bonds will be held November 5, it is reported. (See Manufacturers Record, September 26.)

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Mo., Kansas City.—Official: The Title & Savings Trust Co., Kansas City, purchased at \$37.19 premium and accrued interest from May 2, 1912, \$17,437.12 of 6 per cent. bonds to pay for land for park purposes; denomination \$1000, except one for \$437.12; dated May 2, 1912; maturity on or before June, 1923. Address Board of Park Commissioners, Frank P. Gossard, secretary.

Mo., Nevada.—A special election is to be held, it is reported, to vote on \$20,000 of road bonds. Jerome B. Grigg is secretary Western Missouri Good Roads Association.

Mo., St. Joseph.—November 5, it is reported, \$500,000 of school district school building bonds will be voted on.

Mo., Webster.—Official: Bids will be opened on November 7 for \$40,000 of 4½ per cent. 10-20-year school district bonds voted October 12, 1912; denomination optional. F. B. Miller is secretary.

Mo., West Plains.—Official: William R. Compton Company, St. Louis, Mo., purchased at par \$30,000 of 5 per cent. road bonds of West Plains special road district; denomination \$500; maturity, \$2000 in 1914 and \$2000 each year until paid. J. A. Shepard is Clerk.

Mo., Webster Groves.—Bids will be received until 8 P. M. November 7 for \$40,000 of 4½ per cent. 10-20-year school district bonds. Address F. B. Miller, secretary, 659 Tuxedo Blvd., Webster Groves, Mo.

N. C., Boone.—An election will probably be held in Watauga county to vote on \$100,000 of railroad-aid bonds.

Okla., Enid.—Official: Bids will be opened on October 28 for \$25,000 of 5 per cent. 25-year gas-well bonds voted October 1, 1912; dated November 1, 1912; maturity November 1, 1937; denomination \$500. Peter Bowers is Mayor.

Okla., Foraker.—An election will probably be held, it is reported, to vote on water-works system bonds.

Okla., Sallisaw.—M. S. Blassingame is reported to have purchased for a Fort Smith firm \$6000 of bonds of Redland School District.

S. C., Camden.—Official: Bids will be received until noon December 2 by the Commissioners of Public Works, J. J. Goodale, clerk, for \$100,000 of 5 per cent. 20-40-year water-works plant bonds; denomination \$1000. Further particulars will be found in the advertising columns.

Okla., Guymon.—Official: E. D. Edwards, Oklahoma City, purchased at par \$30,000 of 6 per cent. 25-year Texas county courthouse building bonds to be voted on November 5, 1912; dated after January 1, 1913; maturity 1938.

S. C., Yorkville.—The election to vote on \$75,000 of 20-year York county courthouse bonds will, it is reported, be held November 5.

S. C., Spartanburg.—The Central National Bank of Spartanburg is reported to have been awarded at \$201,000, with accrued interest at 4½ per cent. since September 1, the \$200,000 of city-improvement bonds. O. L. Johnson is Mayor.

Tenn., Crossville.—Reported voted: \$10,000 of street improvement bonds.

Tenn., Greeneville.—Greene county will probably issue \$200,000 or \$300,000 of road bonds between now and spring.

Tenn., Greeneville.—City proposes to issue about \$65,000 of water-works system bonds.

Tex., Austin.—The Attorney-General has approved the following securities: \$2000 of Cameron county common school district No. 1 schoolhouse bonds; \$1800 of 5 per cent. 10-20-year Hopkins county common school district No. 15 bonds; \$1360 of 5 per cent. 10-20-year Kerr county jail refunding bonds; \$5000 of 5 per cent. 10-40-year Van Alstyne water-works improvement bonds; \$2000 of 5 per cent. bonds of Ellis common school district No. 111; \$10,000 of water-works; \$13,000 of public fire department; \$75,000 of free school and \$100,000 of 5 per cent. 40-year bonds; \$136,000 of 5 per cent. 30-year Houston drainage district No. 5 bonds.

Tex., Abilene.—H. C. Speer & Sons Company, Chicago, are reported to have purchased \$35,000 of street-extension bonds.

Tex., Beaumont.—Official: Bids will be received until 2 P. M. November 2 for \$92,000 of 5 per cent. 10-40-year bonds of Jefferson County Drainage District No. 3. R. W. Wilson is County Judge, Jefferson county.

Tex., Caldwell.—The Commissioners' Court is reported to have been petitioned to call an election to vote on \$90,000 of courthouse bonds.

Tex., Cleburne.—Jewell P. Lightfoot is reported to have purchased for William R.

Compton Bond & Mortgage Co. of St. Louis, at \$2750 above par, \$175,000 of courthouse bonds.

Tex., Corsicana.—Official: October 29 an election is to be held to vote on \$20,000 of 5 per cent. 40-year street-improvement bonds. B. H. Woods, Jr., is Mayor.

Tex., Giddings.—Reported voted: \$20,000 of school bonds.

Tex., Goldthwaite.—Jewell P. Lightfoot, representing the William R. Compton Bond & Mortgage Co. of St. Louis, is reported to have purchased \$50,000 of 5 per cent. 10-40-year bonds at par, accrued interest and \$275 premium.

Tex., Granger.—Reported voted: \$3000 of Granger school district school bonds.

Tex., Franklin.—Reported that bids will be opened on October 24 for \$500,000 of Franklin county road bonds.

Tex., Goliad.—Official: Voted September 16: \$20,000 of 5 per cent. 20-40-year school bonds, which have been approved by the Attorney-General, and bids for printing and lithographing said bonds are now invited. T. S. Cox is superintendent of Schools.

Tex., Polytechnic.—Reported that an election is to be held to vote on \$15,000 of water-works bonds.

Tex., Richmond.—November 5, it is reported, an election is to be held to vote on \$350,000 of bonds of Road District No. 1.

Tex., San Leon.—Reported that \$6500 of 5 per cent. 10-20-year bonds of common school district No. 21 are to be issued. Bonds were voted June 15 and will be dated August 15, 1912.

Tex., Sulphur.—An election is soon to be held, it is reported, to vote on \$17,500 of sewer bonds.

Tex., Sweetwater.—Otis & Co., Dayton, O., are reported to have recently purchased \$35,000 of 5 per cent. 20-40-year sewerage bonds at par and accrued interest. L. S. Polk is City Secretary.

Tex., Temple.—November 5, it is reported, election will be held to vote on \$75,000 of sewerage bonds.

Tex., Texarkana.—Official: November 12 an election is to be held to vote on \$50,000 of school bonds. A. C. Stuart is president School Board.

Tex., Yoakum.—Official: The Yoakum State Bank, Yoakum, purchased on October 7 at \$231 premium \$320,000 of 5 per cent. 20-40-year Yoakum sanitary sewerage system bonds; denomination \$1000; dated September 3, 1912. J. M. Haller is Mayor.

Tex., Wichita Falls.—Official: November 5 an election is to be held to vote on \$22,000 of 5 per cent. 10-40-year street-improvement and sewer bonds.

Va., Chatham.—Official: At noon on December 3 the Board of Supervisors of Pittsylvania County, J. E. Gies, chairman, will sell at public auction \$50,000 of 5 per cent. 34-year bonds of Dan River district in said county; denomination \$100 or multiple thereof. Further particulars will be found in the advertising columns.

Va., Chase City.—J. B. McCrary Company, Atlanta, are reported to have been awarded \$45,000 of 5 per cent. 30-year water and sewer bonds.

Va., Norfolk.—Official: Harris, Forbes & Co., New York, purchased on September 12 at \$97,584 net \$85,000 of 4½ per cent. 30-year improvement bonds; dated September 1, 1912; maturity September 1, 1942. B. Gray Tunstall is City Treasurer.

Va., Wise.—Official: Gladeville District, Wise county, will vote on from \$125,000 to \$165,000 of road bonds.

W. Va., Warwood.—Bids will be received until November 7 for \$12,000 of sewer bonds. Address John J. O'Kane, John A. Moore and S. Nesbitt, Jr., bond commissioners.

#### FINANCIAL NOTES.

The Union Savings Bank of Mobile, Ala., proposes, it is stated, to increase its capital to \$500,000.

The Farmers' State Bank of Kenedy, Tex., is reported to have filed an amendment to its charter increasing its capital from \$30,000 to \$50,000.

The Leonville (La.) branch of the Union Bank & Trust Co. of Opelousas, La., is reported to have begun business. George Vidrine is cashier.

The Central Investment Co. of Jacksonville, Fla., is reported considering the question of increasing its capital from \$100,000 to \$250,000. Pleasant A. Holt is president.

Under the name of J. M. Dewberry & Co., investment bankers and dealers in bonds, stocks, etc., J. M. Dewberry has organized

a bond-and investment business with offices in the Brown Marx Bldg.

The Fidelity Corporation of America, with headquarters at Norfolk, Va., is reported contemplating the establishment of branches at Charlotte and Durham, N. C., and Greenville, S. C.

The Banking Department of the State of Maryland has issued the first annual roll of honor of the State banks and trust companies of this Commonwealth. It gives the names of 30 banking institutions with surplus and undivided profits in excess of capital. The data was prepared by J. Dukes Downs, bank commissioner.

A statement of State banks in North Carolina at close of business September 4, 1912, as compared with statement for September 1, 1911, shows total resources for 1912 of \$75,497,136, against \$71,144,154 for 1911, an in-

crease of \$4,352,981. There are 366 banks, compared with 355 for last year. The capital stock is \$10,104,316, a gain of \$781,754.

Since January 1 there have been chartered in Georgia 42 new State banks with an aggregate capital of \$1,290,000, according to records in the office of the Secretary of State. Of these banks one is capitalized at \$100,000, six at \$50,000, one at \$40,000, and the others at \$25,000.

At the annual meeting of the National Association of Life Underwriters held at Memphis, Tenn., October 15, 16 and 17, the following officers were elected for the ensuing year: Neil D. Sills, Richmond, Va., president; John A. Torey, the president of the Canadian Association; S. E. Barber of Kansas and H. R. Lewis of Rochester, the three vice-presidents; Bolling Sibley of Memphis, secretary, and Eli D. Weeks, treasurer.



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**COMPLETE ICE MAKING AND REFRIGERATING PLANTS**

## Jefferson Dynamite

We manufacture Dynamite in various grades and strengths for Mines, Quarries, Grading, Stump Blasting, Ditching, Subsoiling and Tree Planting.

## Jefferson Powder

We manufacture Powder in all grades for Blasting purposes.

## Jefferson Bituminite

We manufacture Bituminite (Permissible Powder) in various strengths to suit the conditions in Dusty and Gaseous Coal Mines.

## Jefferson Blasting Supplies

We handle a full line of Blasting Supplies. Get our prices on your Explosive requirements in the South.

Let us help you to get the best results for your money.

We make *Prompt Shipment of Fresh Goods on Short Notice.*

## JEFFERSON POWDER CO.

1504 Empire Building

BIRMINGHAM, ALA.

# Barrett Specification Roofs



## On Four Great Granaries

To cover the four huge granaries illustrated herewith the Canadian Pacific R. R. engineers chose Barrett Specification Roofs for good and sufficient reasons.

These practical men know that these roofs will last *20 years or more*.

They further know that they will need no painting or maintenance expense of any kind, and that the net cost per year of service will be infinitely lower than could be shown by any other type of roofing.

It is for these very reasons that Barrett Specification Roofs are used on more first-class buildings in the United States and Canada than any other kind.

A big roof generally means a Barrett Specification Roof, for the reason that the cost of big roofs is carefully scrutinized and ultimate economy carefully considered. Small roof areas ought also to have Barrett Specification Roofs, because they are just as economical and satisfactory there.

Copy of The Barrett Specification with tracings ready for incorporation into building plans free on request. Address nearest office.

### Special Note

We advise incorporating into plans the full wording of The Barrett Specification, in order to avoid any misunderstanding.

If any abbreviated form is desired, however, the following is suggested:

ROOFING—Shall be a Barrett Specification Roof laid as directed in printed Specification, revised August 15, 1911, using the materials specified, and subject to the inspection requirements.

## BARRETT MANUFACTURING CO.

New York, Chicago, Philadelphia, Boston, St. Louis, Cleveland, Pittsburgh,  
Cincinnati, Kansas City, Minneapolis, New Orleans, Seattle, London, Eng.  
The Paterson Mfg. Co., Ltd.—Montreal, Toronto, Winnipeg, Vancouver, St. John, N. B., Halifax, N. S.

